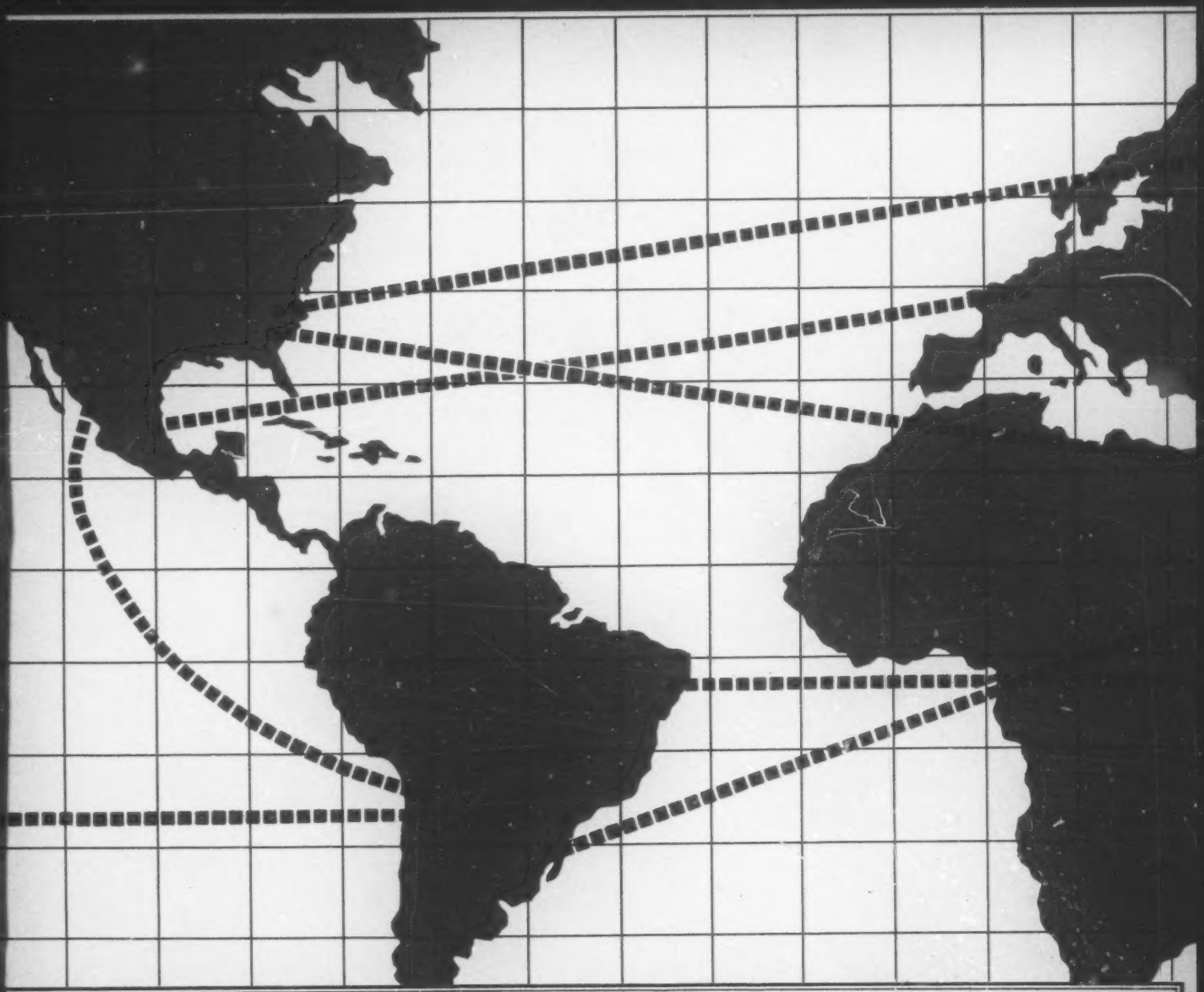
C6585-1
7/19/82

NAVAL STORES REVIEW



1981 INTERNATIONAL YEARBOOK

From The South's Finest Pines

FRP COMPANY

Supplies

FILTREZ®

SYNTHETIC RESINS

Ester Gums
Maleic Resins
Phenolic Resins
Fumaric Resins
Pentaerythritol Resins

World

Famous

FILTROS®

GUM ROSIN

GUM TURPENTINE

FRP COMPANY

P.O. Box 349 Baxley, Ga. 31513

PHONE: 912-367-3616
TELEX: 810-788-5450
CABLE: Filtros-Baxley

NAVAL STORES REVIEW

1981 INTERNATIONAL YEARBOOK

EDITORIAL ADVISORY BOARD

A. B. Doran — Robert P. T. Young
James Gillis, Jr. — George W. Varn
W. L. Cleaver — John Faber
Walter Rausch — Keith T. Smith

EDITORIAL AND BUSINESS STAFF
Editor and Publisher
W. H. Flanagan

Associate Editors
Ray Lawrence
Douglas E. Campbell
Francis V. Pound
Jack Dean
H. Kuritani
E. E. McSweeney

Managing Editor
Richard C. Crosby, Jr.

Editorial Consultant
E. E. McSweeney

Circulation
Linda McClelland

The NAVAL STORES INTERNATIONAL YEARBOOK presents all available statistical data on world-wide production, importing, exporting and consumption of naval stores products. It is published by NAVAL STORES REVIEW, executive and editorial offices 107 Camp St., New Orleans, LA. 70130. Price $25.00 per copy. Postmaster send changes of address to P. O. Box 2406, New Orleans, LA. 70176.

Copyright © 1982

Contents

Section 1 — U. S. Naval Stores Production

- U.S. Rosin Production 5
- U.S. Turpentine Production. . 5
- U.S. Rosin Movement, Stocks 6
- U.S. Turpentine Movement, Stocks 7
- U.S. Tall Oil Production 8

Section 2 — U.S. Naval Stores — Consumption

- Consumption of Rosin 11
- Consumption of Turpentine . 11
- Average Market Price 11

Section 3 — U.S. Naval Stores - Exports

- Rosin 13
- Turpentine. 13
- Tall Oil 13
- Rosin Exports (by countries). 14
- Export Values. 16
- Crude Tall Oil (by countries) . 18
- Tall Oil Fatty Acids. 19
- Terpenic Solvent Mixtures. . . 20
- Polyterpene Resins 20
- Pine Oil 20
- List of Tall Oil Fractionators . 21

Section 4 — U.S. Naval Stores -- Imports

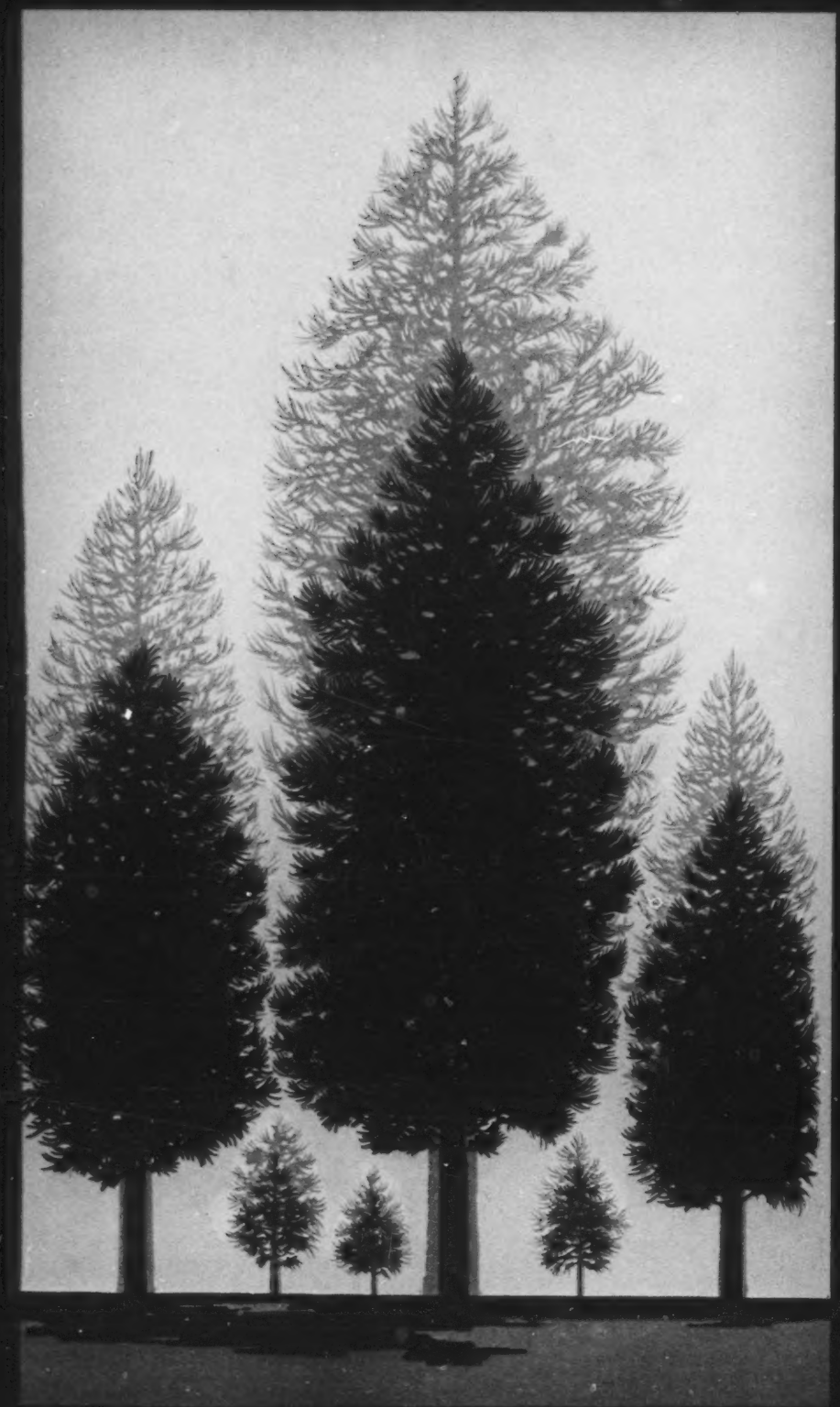
- Turpentine Imports 23
- Rosin Imports. 23

Section 5 — World Naval Stores

- Argentina. 25
- Austria 25
- Belgium. 25
- Brazil 25
- Canada 27
- Finland 27
- France. 27
- F. R. Germany 27
- Greece. 27
- India. 29
- Japan 29
- Mexico 29
- Netherlands 29
- Norway 29
- P. R. China. 30
- Portugal. 30
- Spain 30
- Sweden 30
- Switzerland 30
- United Kingdom 30
- Yugoslavia 30

Publisher's Note — The material in this 1981 issue includes all available data received to date of June 21, 1982. Any data received after that date will be published, as received, in the bi-monthly NAVAL STORES REVIEW and in the next yearbook.

How Hercules is stimulating new growth in Naval Stores



At Hercules, aggressive programs are underway that will provide new growth to the Naval Stores industry for the 1980's and beyond.

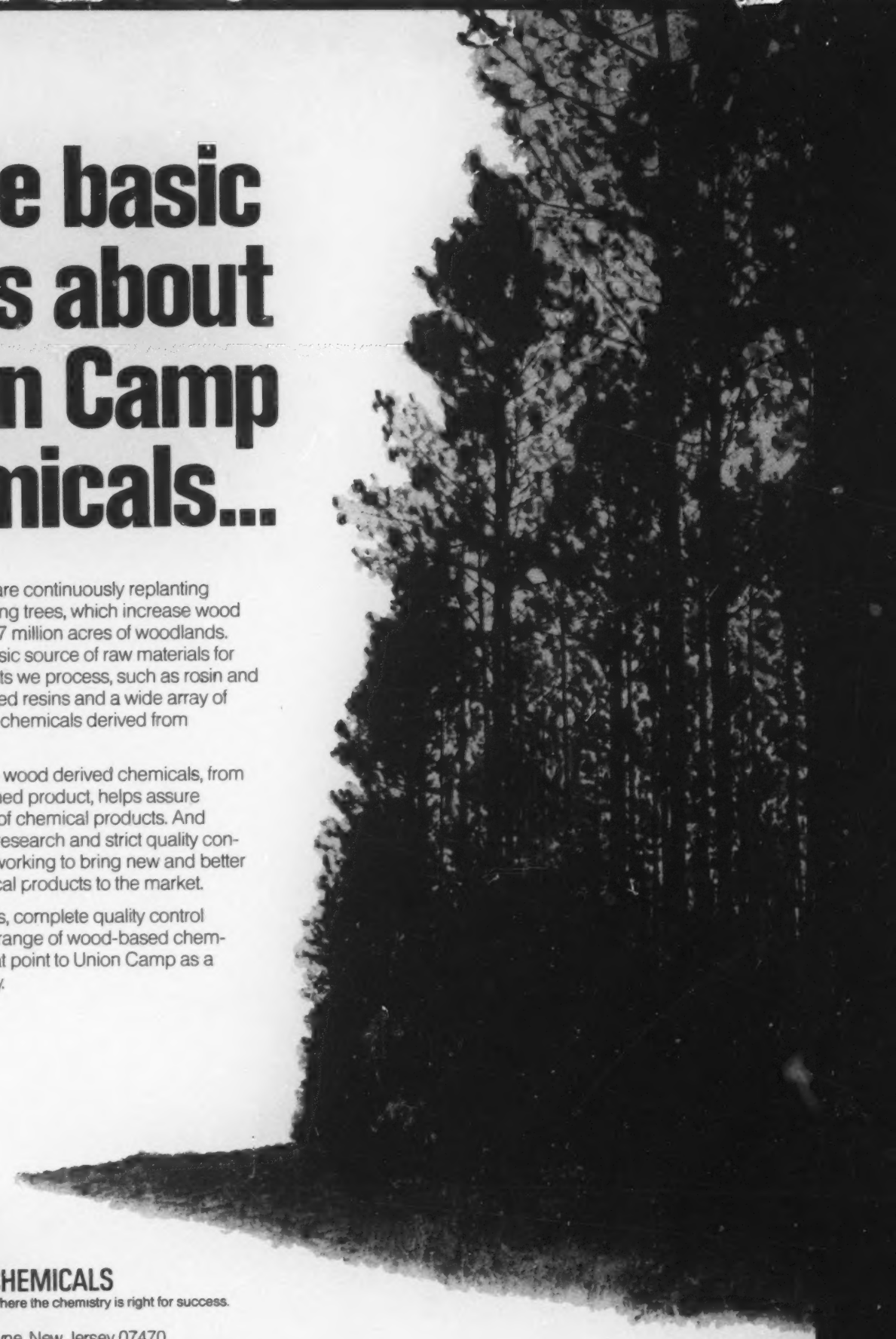
Through our unique Pinex program, we are increasing rosin and turpentine formation in pine stumps by inoculation with a special reagent. Concurrently, Hercules is forging ahead with increased research and development, new product applications, and a program for multiple sourcing of raw materials.

By far, we remain the leader in Naval Stores by our solid commitment to the industry. To meet your needs in Naval Stores worldwide, call upon Hercules, where the emphasis is on quality, innovation, and growth.

HERCULES

Hercules Incorporated
910 Market Street
Wilmington, Delaware, USA 19899
Telephone: (302) 575-6500
Telex: 83-5479

Some basic facts about Union Camp chemicals...



At Union Camp, we are continuously replanting superior, faster growing trees, which increase wood fibre yields, on our 1.7 million acres of woodlands. These trees are a basic source of raw materials for the chemical products we process, such as rosin and fatty acids, rosin-based resins and a wide array of flavor and fragrance chemicals derived from turpentine.

Our basic position in wood derived chemicals, from the forest to the finished product, helps assure a continuing supply of chemical products. And through expansion, research and strict quality control, Union Camp is working to bring new and better wood-based chemical products to the market.

Extensive woodlands, complete quality control facilities and a wide range of wood-based chemicals—basic facts that point to Union Camp as a leader in the industry.

Union Camp CHEMICALS
Where the chemistry is right for success.

1600 Valley Road, Wayne, New Jersey 07470

Worldwide Production of Rosin

Rosin has been a rather stable commodity as far as production is concerned for many years with world production averaging about a billion metric tons. As late as the early 1960's, almost half of this quantity was produced and consumed in the United States. U.S. gum rosin accounted for over 10% of world production; wood rosin had become a major factor and tall oil rosin was growing rapidly. By contrast, in 1981, U.S. gum production has shrunk to about 0.4% and U.S. wood rosin production, while still significant, has shrunk to less than 10% of the world total and quantitive production figures are no longer reported. Gum rosin still predominates world-wide.

Naval Stores Review obtains official production statistics where available but must resort to estimates from well-informed sources when such numbers cannot be obtained. In the following table, these quantities are set in parentheses. In future years we will strive to obtain more hard numbers since they do make up such an important percentage of the total. Suggestions in this regard from our readers would be appreciated.

	Metric Tons
Argentina	5,000
Austria	(4,000)
Finland	23,600
France	2,000
Greece	(10,000)
Honduras	7,300
India	31,100
Japan	(17,000)
Mexico	65,000
Peoples Republic of China	(310,000)
Portugal	93,000
Sweden	(30,000)
Yugoslavia	2,700
U.S.A.	
Gum	4,600
Wood	(100,000)
Tall Oil	201,600
U.S.S.R.	(250,000)
TOTAL	1,156,900

Quality Naval Stores Products *Since 1921*

- REGULAR AND FORTIFIED PAPER SIZE
- ADHESIVE RESINS AND SOLUTIONS
- STEAM DISTILLED TURPENTINE
- FF WOOD ROSIN
- PRINTING INK RESINS
- ROSIN BASED SPECIALTIES
- STEAM DISTILLED PINE OIL

CONTINENTAL TURPENTINE & ROSIN CORP

Phone Cross City: AC/904 498-3335-6-7
Plant & Office Location: SHAMROCK, FLA.
Mail Address: P. O. Box QQ, CROSS CITY, FLA. 32628

Section 1
U. S. Naval Stores

- Production
- Movement
- Stocks

(Note: Naval Stores Year begins April and ends March 31.

U.S. Rosin Production (Drums)

Naval Stores Years	Gum	Wood	Tall Oil	Total
1970-	87,740	768,480	799,620	1,655,840
1971-	91,890	733,560	805,070	1,630,520
1972-	89,020	699,640	839,670	1,628,330
1973-	74,380	657,690	851,520	1,583,590
1974-	54,420	547,100	704,610	1,306,130
1975-	71,820	358,070	658,050	1,087,940
1976-	60,610	508,680	787,690	1,356,980
1977-	51,140	474,630	775,990	1,301,160
1978-	34,590	460,270	843,730	1,338,590
1979-	24,200	433,218	1,007,722	1,465,140
1980-	22,420		906,000	1,363,000
1981	18,930		800.6 (Metric Tons)	

U.S. Turpentine Production (50-Gal. bbls.)

Naval Stores Years	Gum	Wood	Sulfate	Total
1970-	25,830	94,620	455,350	575,800
1971-	28,360	85,390	454,900	568,650
1972-	26,550	75,220	464,120	565,890
1973-	21,410	68,860	440,370	530,640
1974-	15,610	62,260	408,160	487,030
1975-	20,690	41,420	385,480	447,590
1976-	17,420	59,720	405,100	482,240
1977-	14,530	50,880	412,150	477,560
1978-	9,740	47,590	450,410	507,740
1979-	6,740	47,720	473,360	527,820
1981	326,220 gal.			

Now Available . . . Annual

1982 Study of International Rosin Markets

An authoritative survey of current market conditions in the United States, Europe and Japan together with analysis of statistical information and forecast of future trends.

For further information contact:

International Development Associates, Inc.

POST BOX 3774 WILMINGTON, DEL. 19807

Phone (215) 388-1325 CABLE: IDEAMEN TELEX 835-394

U. S. Rosin Production, Movement, Stocks (All Types)

Editor's Note: Production data for U.S. Rosin is no longer compiled by the U.S.D.A. Any statistics will be included in NAVAL STORES REVIEW when received.

	Stocks at Beginning of Year Apr. 1	Year's Production	Imports	Total Available	Exports	Stocks at Close of Year Mar. 31
1971-	261,260	1,630,520	6,440	1,898,220	455,990	148,290
1972-	183,760	1,628,330	24,120	1,836,210	476,720	76,280
1973-	127,440	1,583,590	106,140	1,817,170	424,105	50,390
1974-	107,950	1,306,130	162,230	1,576,310	267,910	282,950
1975-	282,750	1,807,940	20,930	1,381,620	174,320	232,480
1976-	232,480	1,356,980	25,310	1,614,770	208,020	181,020
1977-	181,020	1,301,160	30,880	1,513,060	202,670	231,270
1978-	232,252	1,338,590	54,660	1,625,500	327,810	215,670
1979-	216,000	1,363,000	52,000	1,631,000	396,000	138,000

Gum Rosin (517-Lb. drums)

	Stocks at Beginning of Year Apr. 1	Year's Production	Imports	Total Available	Exports	Stocks at Close of Year Mar. 31
1971-	147,050	91,890	6,440	245,380	66,640	46,810
1972-	50,910	89,020	24,120	164,050	81,670	4,880
1973-	14,560	74,380	106,140	195,080	26,300	4,550
1974-	32,900	54,420	.....	.....	18,270	96,770
1975-	96,770	71,820	20,930	189,520	13,200	59,590
1976-	59,590	60,610	14,970	135,170	14,880	35,520
1977-	35,520	51,140	27,640	114,300	13,510	21,090
1978-	21,440	34,590	40,990	97,020	18,320	20,190
1979-	20,190	24,200	48,600	92,990	18,440	2,820
1980-	2,820	22,420	31,830	57,070	15,480	3,460

Wood Rosin (Includes Tall Oil Rosin) (520-Lb. drums)

	Stocks at Beginning of Year Apr. 1	Year's Production	Total Available	Exports	Stocks at Close of Year Mar. 31
1971-	114,210	1,538,630	1,652,840	389,350	101,480
1972-	132,850	1,539,310	1,672,160	395,050	71,500
1973-	112,880	1,509,210	1,622,090	397,806	45,840
1974-	75,050	1,251,710	.....	249,640	185,980
1975-	185,980	1,016,120	1,202,100	161,120	172,890
1976-	172,890	1,296,370	1,479,600	265,140	145,500
1977-	145,500	1,250,020	1,398,760	201,000	210,180
1978-	211,000	1,304,000	1,515,000	310,000	195,000
1979-	195,000	1,339,000	1,534,000	378,000	119,000

RAUSCH NAVAL STORES COMPANY, INC.

MANUFACTURERS *DEALERS* *EXPORTERS*

TURPENTINE • ROSIN • PINE TAR • NAVY PITCH
REFINED TALL OIL • PINE OIL • DIPENTENE

CABLE ADDRESS "RAUSCHO" P. O. BOX 4085 NEW ORLEANS, LA. 70178

U. S. Turpentine Production, Movement, Stocks (All Types) (50-Gal. bbls.)

	Stocks at Beginning of Year Apr. 1	Year's Production	Imports	Total Available	Exports	Stocks at Close of Year Mar. 31
1970-	81,830	575,800	24,130	681,760	39,650	94,590
1971-	102,050	568,650	22,660	693,360	41,570	50,230
1972-	101,880	565,890	42,280	710,050	40,050	42,240
1973-	109,050	530,640	33,640	673,330	37,244	42,900
1974-	100,750	487,030	29,740	617,520	16,310	70,740
1975-	70,740	447,590	58,640	576,970	4,190	113,590
1976-	113,590	482,240	16,270	612,100	20,260	127,795
1977-	127,790	477,560	7,940	613,290	19,440	90,810
1978-	90,870	507,740	7,100	605,710	15,310	74,600
1979-	74,600	527,820	7,850	610,270	13,490	73,300

Gum Turpentine (50-Gal. bbls.)

	Stocks at Beginning of Year Apr. 1	Year's Production	Imports	Total Available	Exports	Stocks at Close of Year Mar. 31
1970-	13,360	25,830	24,130	63,320	61,130	12,960
1971-	12,930	28,360	22,660	63,950	3,530	5,550
1972-	11,530	26,550	42,280	80,360	810	7,450
1973-	14,220	21,410	33,640	69,270	3,239	4,860
1974-	10,980	15,610	.....	.....	2,090	5,380
1975-	5,380	20,690	58,640	84,710	1,460	9,550
1976-	9,550	17,420	15,700	42,670	2,060	7,350
1977-	7,350	14,530	7,540	29,420	920	4,790
1978-	4,760	9,740	6,530	21,030	600	3,270
1979-	3,270	6,740	7,770	17,780	550	3,210
1980-	3,210	6,260	10,810	20,280	510	3,400

Wood Turpentine (Includes Sulfate and Steam-Distilled) (50-Gal. bbls.)

	Stocks at Beginning of Year Apr. 1	Year's Production	Total Supply	Exports	Stocks at Close of Year Mar. 31
1970-	68,470	549,970	618,440	33,520	81,630
1971-	89,120	540,290	629,410	38,040	44,680
1972-	90,350	539,340	629,690	39,240	34,790
1973-	94,830	509,230	604,060	34,005	38,040
1974-	89,770	471,420	561,190	14,220	65,360
1975-	65,360	426,900	429,260	2,730	104,040
1976-	104,046	464,820	569,430	18,200	120,440
1977-	120,440	462,610	583,450	18,520	86,110
1978-	86,110	498,000	584,680	14,710	71,330
1979-	71,330	521,080	592,490	12,940	70,090

UNIAO DE INDUSTRIAIS DE PRODUTOS RESINOSOS, LDA.

— EXPORTERS OF GUM ROSIN AND TURPENTINE —

Crude Gum collected in the best forest areas in Portugal, is processed in three factories, one of which is the biggest and the most modern in Europe, operating by continuous steam destillation system. — We export all over the world.

Address: Av. Infante Santo, 23-10º D.-1300 Lisboa-PORTUGAL
Phones: 671150/59-CABLE: UNIRES—TELEX 16477 RESINS P

U. S. Tall Oil

Production—Crude Tall Oil (1,000 Lbs.)

	1978	1979	1980	Metric Tons 1981
Stocks, Jan. 1	101,394	145,024	123,952	55.6
Produced	1,283,014	1,318,306	1,753,978	800.6
Purchased	333,334	378,606		
Used in Process	1,417,032	1,534,120	1,517,000	703.8
Other Utilization	17,336	12,432	9,268	6.8
Domestic Shipments	137,824	167,428	220,394	66.0
Exports	94,298	94,080		30.6
Stocks, Dec. 31	145,024	123,952	122,356	66.0

Production—Tall Oil Rosin (1,000 Lbs.)

	1978	1979	1980	1981
Stocks, Jan. 1	61,617	58,473	30,356	7.8
Production	424,086	464,122	417,603	202.0
Domestic Shipments	352,765	390,702	373,319	168.9
Exports	74,466	98,387	87,31	23.6
Stocks, Dec. 1	58,473	30,351	17,328	17.2

Production—Tall Oil Fatty Acids (1,000 Lbs.)

	1978		1979		1980		1981	
	Over 2%	Under 2%	Over 2%	Under 2%	Over 2%	Under 2%	Over 2%	Under 2%
Stocks, Jan. 1	9,434	8,280	15,703	10,333	16,315	10,869	25.5	3.7
Production	204,433	183,623	208,226	207,577	220,773	186,353	93.0	98.9
Purchases	59	263	6,503		9,298	2,374	86.5	85.9
Domestic Shipments	169,757	161,566	152,601	181,475	175,066	171,493	16.9	9.9
Exports	28,466	20,267	31,516	26,759	19,179	19,994	15.1	6.7
Stocks, Dec. 31	15,703	10,333	16,315	9,678	56,140	8,106		

YASUHARA YUSHI KOGYO CO., LTD.

No 1080 TAKAGI CHO FUCHU-CITY
HIROSHIMA 726 JAPAN

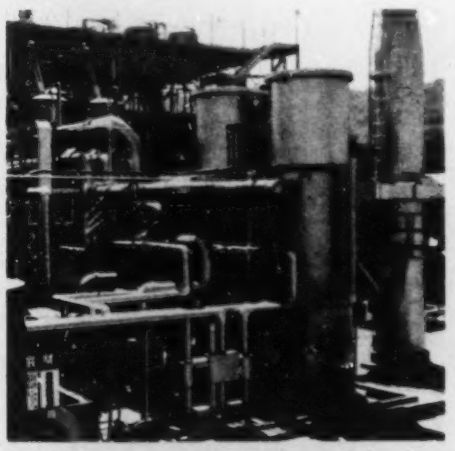
SPECIALIZING IN TERPENE CHEMICALS

Polyterpene Resin
- Terpene Phenolic Resin
- Rubber Processing Oil
- Rubber Reclaiming Oil
- Polyethylene Wax

Terpene Derivatives
- Allo-Ocimene
- Terpineol
- Anethole
- Nopyl Acetate

Cable Address:
YASUHARAYUSHI FUCHUHIROSHIMA

Telex 645729 YYKCL
Tel (0847) 45-3530



OUR NEW PLANT HAS BEEN SERVING YOU FOR OVER 45 YEARS.

Our recent acquisition of the Picayune, Mississippi, manufacturing facility of Crosby Chemicals, Inc., enables us to combine the resources, technology and reputation of Sylvachem with over 45 years of processing experience.

The result is a supplier who knows the adhesives, ink, coatings, oilfield, and specialty chemicals industries and can offer you exceptional capabilities, backed by a guaranteed raw material base.

What this means for you are more high quality products, including dimer acids, polyamide resins, modified rosins, ester gum resins, rosin-based tackifiers, and epoxy curing agents.

Plus, a commitment to the best service in the business.

Along with our acquisition, we have recently added a multi-million dollar resin reactor to our Port St. Joe facility. We now have the capacity to supply almost any demand. Large or small.

Our expansion and acquisition give us a totally integrated processing system—from trees to final product—assuring you of a constant supply of quality products.

Make us the one source for all your needs. Call us today, toll free: 1-800-874-7661.

The right chemistry for tomorrow.

sylvachem
CORPORATION

Headquarters: 2110-A West 23rd Street
Panama City, Florida 32405
Phone: (904) 769-7651 Telex: 525609

European Office: Sylvachem,
N. V. SCM Europe S.A.
Rue Charles Lemaire 1, Box 1
B-1160 Brussels, Belgium
Phone: (2) 660-6980 Telex: 63519

IF YOU SELL GOOD PAINT—

SELL GUM TURPENTINE

the original standard Paint Thinner

Gum Turpentine is the original, fool-proof paint thinner for oil-based paints, enamels and for varnishes. It penetrates properly to anchor the paint —enriches the paint film. Nationally advertised in leading magazines. Order a good stock of Gum Turpentine today. The AT-FA seal is your assurance of genuine spirits of Gum Turpentine.

AMERICAN TURPENTINE FARMERS ASSOCIATION
General Offices: Valdosta, Ga.

Section 2
U. S. Naval Stores Consumption

Crop Year Beginning April 1

ROSIN (METRIC TONS)

	1970	1971	1972	1973	1974
Chemicals & Rubber	147.1	135.8	133.2	131.8	113.9
Esters, Synthetic Resins	51.5	51.0	57.8	62.5	48.9
Paint, Varnish & Laquer	13.6	16.9	12.4	11.9	6.7
Paper & Paper Size	122.5	121.4	110.9	81.9	72.3
Other Industries	10.2	12.0	11.7	12.1	18.7
Total	345.5	337.0	325.8	300.0	260.3

	1975	1976	1977	1978	1979
Chemicals & Rubber	90.6	105.2	88.9	85.4	83.3
Esters, Synthetic Resins	52.5	66.8	57.1	55.0	63.2
Paint, Varnish & Lacquer	3.9	5.3	5.3	4.6	5.2
Paper & Paper Size	87.6	87.3	84.3	109.4	83.1
Other Industries	13.9	19.2	17.9	21.2	16.2
Total	248.5	283.7	253.2	278.4	251.0

TURPENTINE (METRIC TONS)

	1970	1971	1972	1973	1974
Chemicals, Rubber	26.47	27.05	23.10	21.87	21.58
Paint, Varnish & Lacquer	0.08	.11	.07	.05	.05
Other Industries	0.26	.07	.21	.25	.35
Total Reported	26.81	27.22	23.38	22.17	21.99

	1975	1976	1977	1978	1979
Chemicals, Rubber	20.97	23.80	23.21	24.84	24.88
Paint, Varnish & Lacquer	0.04	.04	.05	.03	.02
Other Industries	0.16	.18	—	.39	.31
Total Reported	21.17	24.02	23.66	23.26	25.22

GUM NAVAL STORES—Average Market Price and Value

Crop Year	Weighted average market price (Dollars) Crude Gum, (per Std. Bbls.)	Turpentine, (per gallon)	Rosin, (100 pounds)	Market value of production (Thousand Dollars) Turpentine	Rosin	Turpentine and Rosin
1970	47.37	1.200	15.03	1,550	6,818	8,368
1971	51.14	1.200	16.93	1,702	6,210	7,912
1972	55.17	1.046	18.89	1,389	8,694	10,083
1973	60.97	.806	22.72	863	8,737	9,600
1974	84.36	1.389	35.92	1,084	10,106	11,190
1975	59.59	1.585	25.15	1,640	9,338	10,978
1976	59.46	1.427	24.46	1,278	7,971	9,249
1977	65.46	1.425	25.35	1,035	6,702	7,737
1978	67.82	1.610	27.54	784	4,925	5,709
1979	82.19	2.036	35.05	686	4,385	5,071

ORTHO PARAQUAT CL HERBICIDE WILL INCREASE THE CONCENTRATION OF RESIN IN PINE WOOD.

ORTHO Paraquat CL herbicide works fast when it's used for resin soaking operations on Loblolly, Shortleaf, Longleaf, Slash, Virginia, Pond, Pitch and Spruce Pines.

Paraquat can be applied in a variety of ways –through bark streaks or cuts, by tree injection or the bore hole method.

For further information about Paraquat, write or call W. Hancock, Chevron Chemical Company, 575 Market Street, San Francisco, CA 94105 (415-894-3750) or M. R. Jones, Chevron Chemical Company, 1728 Montreal Circle, Suite 12, Tucker, GA 30084 (404-934-0494).

DANGER: Paraquat is highly toxic if swallowed and should be kept out of the reach of children. To prevent accidental ingestion, never transfer to food, drink or other containers. Read the label carefully and follow all directions, danger statements and worker safety rules. Restricted Use Pesticide. Use all chemicals only as directed.

Chevron

ORTHO PARAQUAT CL

TM's: ORTHO, CHEVRON, CHEVRON DESIGN, REG. U.S. PAT. AND T.M. OFF.

Section 3
U. S. Naval Stores Exports

- ROSIN
- TURPENTINE
- MISCELLANEOUS PRODUCTS
- WOOD TAR, PITCH, TAR OIL
- PINE OIL, ROSIN DERIVATIVES

U.S. Exports — Rosin Metric Tons

	Gum	Wood	Tall Oil	Total
1971	16,013	91,486	.....	107,500
1972	18,539	95,101	.....	113,640
1973	16,910	93,777	.....	110,688
1974	4,832	72,353	.....	77,284
1975	3,065	30,934	.....	33,998
1976	3,144	66,768	.....	69,913
1977	3,045	43,334		46,380
1978	4,189	22,139	46,215	77,543
1979	4,499	24,770	63,290	92,518
1980	3,272	21,331	66,648	91,242
1981	3,617	23,370	72,543	

U.S. Exports — Turpentine (Gallons)

	Gum	Wood	Sulfate	Total
1971	144,993	1,771,856	.....	1,916,849
1972	71,139	1,551,096	.....	1,622,235
1973	163,542	5,098,883	.....	5,262,425
1974	111,910	1,106,549	.....	1,218,459
1975	77,766	152,230	.....	229,995
1976	79,737	707,576	.....	787,313
1977	55,820	1,152,909	.....	1,208,729
1978	288,178	3,508,810	1,323,073	5,022,554
1979	198,027	2,654,597	2,189,930	5,021,554
1980	171,098	2,900,454	4,637,199	7,708,751
1981	202,570	660,816	3,123,012	

U.S. Exports — Tall Oil (Metric Tons)

	Crude Tall Oil	Tall Oil Fatty Acids
1970	16,001	43,691
1971	38,882	41,865
1972	28,453	33,879
1973	64,704	29,423
1974	44,048	13,914
1975	77,145	28,645
1976	43,827	27,882
1977	60,706	28,710
1978	50,860	32,234
1979	56,564	29,154
1980	55,850	26,860

CONSULTANT

In NAVAL STORES

Former Director, USDA Naval Stores Laboratory, Olustee, Fla.

35 Years' Experience in the Naval Stores Industry

Consultant on Rosin and Turpentine Production, Processing and Utilization

Write: **Ray V. Lawrence**
621 W. DeSoto St.
Lake City, Florida 32055

United States Exports of Rosin by Countries (1,000 Lbs.)

Argentina

Year	Gum	Wood	Tall Oil	Total
1970	377	1,695	.....	2,072
1971	.....	2,012	241	2,253
1972	.....	1,933	882	2,815
1973	.....	325	1,524	1,849
1974	48	827	1,334	2,209
1975	.....	187	2,040	2,289
1976	.....	382	881	1,263
1977	.....	306	1,146	1,452
1978	.....	476	1,358	1,834
1979	267	.....	4,681	4,948
1980	12	54	4,159	4,225
1981			4,905	4,905

Australia

Year	Gum	Wood	Tall Oil	Total
1970	3,868	5,447	3,350	12,665
1971	2,252	3,901	1,941	8,094
1972	1,805	2,677	1,178	5,660
1973	3,134	2,939	1,239	7,312
1974	1,350	4,474	440	6,264
1975	.....	432	.....	432
1976	50	1,729	608	2,387
1977	354	1,494	.....	1,848
1978	201	1,793	1,249	3,243
1979	268	1,464	1,307	3,039
1980	219	1,157	4,750	6,125
1981	172	1,174	2,294	3,640

Belgium

Year	Gum	Wood	Tall Oil	Total
1970	905	1,128	.....	2,033
1971	923	439	726	2,088
1972	245	165	672	1,082
1973	898	363	1,200	2,461
1974	.....	218	509	727
1975	.....	.....	.....	.....
1976	.....	.....	3,979	3,979
1977	.....	.....	.....	.....
1978	.....	869	3,563	4,432
1979	.....	2,014	2,597	4,611
1980	46	136	6,836	7,018
1981			4,931	4,931

Brazil

Year	Gum	Wood	Tall Oil	Total
1970	6,957	5,367	4,306	16,630
1971	1,023	3,966	4,971	9,960
1972	1,021	6,118	8,301	15,440
1973	1,236	8,902	10,362	20,500
1974	779	5,187	14,140	20,122
1975	160	5,925	6,561	12,646
1976		6,082	2,479	8,561
1977		9,128	2,172	11,300
1978	188	7,366	6,587	14,141
1979	321	10,879	14,818	26,018
1980	300	6,738	22,289	29,327
1981	1,220	3,388	15,751	20,359

Canada

Year	Gum	Wood	Tall Oil	Total
1970	3,360	16,216	21,072	40,648
1971	3,270	16,631	13,857	33,758
1972	3,668	14,865	15,830	34,363
1973	4,136	13,987	17,395	35,512
1974	1,578	12,812	16,106	30,496
1975	1,020	5,771	9,320	16,111
1976	705	5,402	14,185	20,292
1977	1,008	5,372	12,660	19,040
1978	3,507	3,345	16,254	23,106
1979	4,364	1,123	22,571	28,058
1980	2,006	1,015	17,778	20,799
1981	1,595	1,612	28,370	41,087

Colombia

Year	Gum	Wood	Tall Oil	Total
1979	.....	.....	1,790	1,790
1980	18	76	1,531	1,625
1981		95	648	743

Denmark

Year	Gum	Wood	Tall Oil	Total
1970	1,376	393	.....	1,769
1971	.....	320	.....	320
1972	.....	254	.....	254
1973	.....	254	.....	254
1974	.....	273	.....	273
1975	.....	199	.....	199
1976	.....	184	.....	184
1977	.....	386	.....	386
1978	.....	240	.....	240
1979	.....	439	463	902
1980	11	286	60	357
1981		247		247

France

Year	Gum	Wood	Tall Oil	Total
1970	381	1,256	1,710	3,347
1971	221	559	848	1,628
1972	144	329	3,427	3,900
1973	2,570	503	4,823	7,896
1974	489	478	1,098	2,065
1975	469	.....	1,165	1,634
1976	444	265	4,632	5,341
1977	520	124	925	1,599
1978	259	.....	6,762	7,021
1979	320	452	2,834	3,606
1980	558	252	9,278	10,088
1981		306	4,253	4,559

Germany

Year	Gum	Wood	Tall Oil	Total
1970	22,866	27,834	4,370	55,090
1971	12,618	21,852	5,201	39,671
1972	10,427	15,468	7,332	33,227
1973	4,832	14,440	8,013	27,285
1974	964	6,714	6,264	13,942
1975	707	3,069	4,597	8,373
1976	793	7,201	6,093	13,087
1977	871	2,915	3,975	7,761
1978	984	1,064	3,595	6,643
1979	705	2,181	9,346	12,232
1980	674	4,105	10,262	15,041
1981	429	1,720	4,180	6,329

U.S. Exports by Countries (1,000 Lbs.)

Italy

Year	Gum	Wood	Tall Oil	Total
1970	3,349	3,561	3,189	10,099
1971	802	1,595	215	2,612
1972	2,651	2,840	162	5,653
1973	599	1,440	102	2,141
1974	476	1,379	270	2,125
1975	816	489	579	1,854
1976	335	900	.....	1,235
1977	315	1,038	.....	1,353
1978	503	1,074	992	2,569
1979	838	1,190	1,304	3,332
1980	527	949	2,412	3,888
1981		785	2,095	2,880

Japan

Year	Gum	Wood	Tall Oil	Total
1970	10,229	12,723	24,601	47,553
1971	6,035	9,550	18,033	33,618
1972	11,489	13,451	23,295	48,235
1973	10,118	17,741	22,130	49,989
1974	2,356	8,947	7,365	18,668
1975	1,360	2,967	3,683	8,010
1976	2,237	4,442	22,459	29,138
1977	1,609	3,040	9,418	14,067
1979	1,177	3,437	30,798	35,412
1980	1,796	4,155	25,003	30,954
1981	1,258	4,740	11,801	17,799

Korea Republic

Year	Gum	Wood	Tall Oil	Total
1970	220		4,248	4,668
1971	.....	.....	3,142	3,142
1972	.....	.....	4,350	4,350
1973	.....	.....	4,594	4,594
1974	.....	153	3,337	3,490
1975	.....	.....	.....	.....
1976	.....	.....	3,559	3,559
1977	.....	.....	5,857	5,857
1978	.....	.....	9,842	9,842
1979	.....	.....	10,129	10,179
1980	.....	9	7,360	7,369
1981			6,202	6,202

Mexico

Year	Gum	Wood	Tall Oil	Total
1970	317	2,431		2,748
1971	266	910	1,105	2,281
1972	331	2,694	2,999	6,024
1973	324	1,460	3,054	4,838
1974	44	741	3,944	4,729
1975	....		1,722	1,722
1976	....		1,987	1,987
1977	.....	.....	.....	.....
1978	.....	.....	2,063	2,063
1979	.....	.....	1,880	1,880
1980	302	.....	1,009	1,311
1981			1,355	1,355

Netherlands

Year	Gum	Wood	Tall Oil	Total
1970	4,523	32,572	9,724	46,819
1971	2,513	29,080	5,187	36,780
1972	4,235	17,245	11,183	32,663
1973	3,313	20,491	4,053	27,857
1974	1,195	17,447	2,003	20,645
1975	491	2,972	892	4,355
1976	659	12,236	8,682	21,577
1977	715	12,531	1,388	14,616
1978	587	9,970	8,354	18,911
1979	334	17,856	8,659	26,849
1980	22	19,331	6,253	25,606
1981		21,785	3,835	25,620

Peru

Year	Gum	Wood	Tall Oil	Total
1979	.....	.....	.....	.....
1980	257	782	185	1,224
1981	176	292		468

Philippines

Year	Gum	Wood	Tall Oil	Total
1979	.....	.....	1,145	1,145
1980	24	112	135	271
1981			356	356

Republic of South Africa

Year	Gum	Wood	Tall Oil	Total
1970	1,119	1,582	3,246	5,947
1971	149	1,540	1,843	3,532
1972	425	2,796	3,110	6,331
1973	286	2,365	916	3,567
1974	95	3,174	.....	3,269
1975	.....	2,224	1,101	3,321
1976	.....	2,036	743	2,779
1977	.....	852	933	1,785
1978	.....	1,521	2,352	3,873
1979	.....	1,890	3,184	5,074
1980	.....	1,097	4,449	5,546
1981		896	3,865	4,761

Spain

Year	Gum	Wood	Tall Oil	Total
1970		188		188
1971	.....	316	.....	316
1972	.....	513	.....	513
1973	.....	419	.....	419
1974	.....	157	.....	157
1975	.....	.....	.....	.....
1976	.....	281	.....	281
1977	.....	241	.....	241
1978	.....	.....	515	515
1979	.....	.....	1,059	1,059
1980	.....	97	1,397	1,494
1981			1,191	1,191

Sweden

Year	Gum	Wood	Tall Oil	Total
1970	242	924	424	1,590
1971	.....	650		650
1972	.....	733	385	1,118
1973	.....	433	.....	433
1974	.....	734	.....	734
1975	.....	211	.....	211
1976	.....	325	661	986
1977	.....	448	440	488
1978	.....	377	.....	377
1979	.....	.....	.....	.....
1980	.....	105	93	198
1981				

China (Taiwan)

Year	Gum	Wood	Tall Oil	Total
1970	479	382	2,708	3,569
1971	457	423	1,501	2,381
1972	384	661	913	1,958
1973	221	1,042	4,854	6,117
1974	.....	1,350	2,406	3,756
1975	.....	.....	1,884	1,884
1976	.....	.....	5,006	5,006
1977	.....	413	2,198	2,611
1978	.....	675	5,691	6,466
1979	.....	629	9,013	9,642
1980	9	738	7,503	8,250
1981		574	11,092	11,666

Venezuela

Year	Gum	Wood	Tall Oil	Total
1970	478	1,472	519	2,469
1971	618	1,169	1,009	2,796
1972	828	878	1,107	2,813
1973	440	1,013	601	2,054
1974	90	1,640	44	1,774
1975	349	886	.....	1,235
1976	.....	1,873	.....	1,873
1977	.....	1,298	.....	1,298
1978	.....	3,178	2,385	5,563
1979	.....	702	2,130	2,832
1980	29	439	3,214	3,682
1981		194	3,269	3,463

United Kingdom

Year	Gum	Wood	Tall Oil	Total
1970	3,975	23,244	14,254	41,473
1971	2,210	23,525	14,259	39,994
1972	2,196	14,525	12,170	28,891
1973	2,801	14,040	5,150	21,991
1974	466	13,196	8,122	21,784
1975	237	3,205	3,527	6,969
1976	371	8,129	15,258	23,758
1977	463	5,779	4,660	10,902
1978	507	9,099	8,147	17,753
1979	482	7,524	7,779	15,785
1980	154	4,449	6,331	10,934
1981	262	3,261	4,389	7,912

Other Rosin Exports

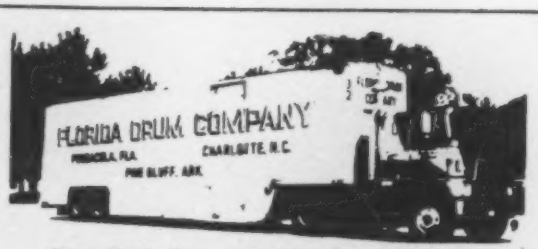
(Quantities too small to list by countries)

Year	Gum	Wood	Tall Oil	Total
1970	454	2,899		
1971	598	1,190	167	1,955
1972	638	1,023	103	1,164
1973	1,193	2,432	328	3,953
1974	400	2,519	312	3,231
1975	804	1,936	675	3,415
1976	718	2,418	311	3,447
1977	859	2,223	1,997	5,079
1978	799	2,666	2,145	5,610
1979	842	2,828	1,994	5,664
1980	233	783	4,633	5,649
1981	555	1,201	5,664	7,420

Note: Includes Guatamala 364, Costa Rica 572, Uruguay 2,601, Israel 442, Saudi Arabia 296, Singapore 131, New Zealand 153, Other 1,105. Total 5,664.

U. S. Rosin Export Values (Dollars)

Calendar Year	Gum	Wood	Tall Oil	Total
1970	9,155,617	20,406,313	11,370,230	40,932,160
1971	5,475,684	21,037,771	11,053,319	37,836,774
1972	4,208,292	18,791,686	14,499,521	37,499,498
1973	3,541,110	22,151,426	15,139,034	40,831,570
1974	3,716,654	27,111,680	15,926,011	46,754,345
1975	2,376,137	9,927,021	8,257,133	20,560,291
1976	1,866,439	15,977,242	14,536,441	32,380,122
1977	2,078,511	15,060,394	7,510,416	24,649,321
1978	3,926,536	14,623,847	18,081,136	36,634,519
1979	5,133,000	16,997,000	27,031,000	49,161,000
1980	4,104,677	17,696,676	42,567,807	64,369,160
1981	3,589,000	18,590,000	42,744,000	64,923,000



New Steel Drums of all types—tight head or full open head—black steel or galvanized—lined or unlined—with fast, dependable service to YOUR plant.

Florida Drum Company, Inc.

Pensacola, Florida 32589

P. O. Box 1951 Phone A/C 904 438-7521

U. S. Turpentine Export Values (Dollars)

	Gum	Wood	Total
1970	320,200	741,727	1,061,927
1971	174,343	765,364	939,707
1972	173,504	835,708	1,009,212
1973	133,693	1,803,663	1,937,356
1974	150,621	544,033	694,654
1975	70,480	199,590	270,070
1976	107,474	324,805	432,279
1977	86,167	312,875	325,073
1978	176,591	613,029	391,716
1979	94,000	486,000	751,000
1980	104,680	1,000,797	1,105,477
1981	151,000	989,000	

Willers, Engel & Co.

(Established 1910)

Hamburg 11
Grimm 8 Weco-Haus
Telex: 2161622

Düsseldorf 30
Niederrheinstr. 1c
Telex: 8584969

Germany

Telegraphic Address: WILLERSENG

Importers of

Gum Rosin, Talloil Rosin, Dimerized and Polymerized Rosin, Modified Rosin Esters, Resinates, Resin, Polyterpene Resin, Polyamide Resin etc.

Gum Spirits of Turpentine, Dipentene, Pineoil, Terpineol etc.

El Pino, S. A.

PRODUCERS AND EXPORTERS OF

MEXICAN NAVAL STORES PRODUCTS

•

GUM ROSIN

All Grades in Standard

Galvanized Drums

•

Pure Gum Spirits of

TURPENTINE

•

Address

12a. Cipres #384 —or— P. O. Box 636

MEXICO 4, D. F., MEXICO

Cable Address: PINOSA MEXICO

Phones: 5475183 and 5411545 Mexico City

TELEX PINOME — 1775849

President
Mr. Jose Antonio Arias

Manager
Mr. Cesar A. de la Canal

One of the Metallurg Group of Companies

BRANDAU Y CIA., S.A.

COMERCIO EXTERIOR

RAFAEL CALVO, 18
MADRID-10
SPAIN

import-export of gum rosin/turpentine

Phone: 410-59-96
Telex: 27485 - 42668 BRACO E

SOLE AGENT IN SPAIN FOR NAVAL STORES PRODUCED BY
SOCER (Sociedade Central de Resinas) - Lisbon
MOURA & LEITAO LDA - Lisbon
SOCIEDADE FABRIL DE PRODUTOS RESINOSOS - Alferrarede
UNIRES (Uniao Industriais de Produtos Resinosos) - Lisbon
BACHNER OIL PRODUCTS, AB — Stockholm
Tall Oil Rosin
RESINA AG - Reinach (Switzerland)
Consultants in Naval Stores.

Exports—U.S. Crude Tall Oil

(Short Tons)	1977	1978	1979	1980	1981
NORTH AMERICA					
Canada	610.75	2,810.29	1,645.68	1,081.07	1,202.12
Mexico	177.92	1,219.35	4,165.91	4,031.63	4,577.27
Panama	.....	.....	5.25	7.60	5.31
Dominican Republic	5.88	.....	6.30	.....	—
Barbados	16.20	.....	.....	.....	—
Antilles	.....	4.20	.....	10.22	9.67
Jamaica	.....	.....	9.08	.....	8.40
El Salvador	52.98	.....	31.49	35.90	—
Haiti	22.15	37.41	12.47	1.68	3.99
Costa Rica	9.03	.....	.....		2.10
SOUTH AMERICA					27.17
Colombia	.....	21.63	0.86	26.85	428.85
Venezuela	398.70	577.80	246.95	386.56	12.82
Brazil	3.15	557.35	5,462.26	2,776.60	—
Argentina	87.60	16.48	94.46	54.56	—
Surinam	11.55	18.69	17.64	15.33	29.33
Guyana	18.48	17.22	21.84	19.95	—
Ecuador	4.20	.....	.....	1.45	1,186.73
EUROPE					24.62
United Kingdom	1,617.49	6,190.93	5,035.02	.....	1.16
Netherlands	3.56	21.85	734.16	1,068.36	0.10
Belgium	17.80	437.32	247.28	35.15	1,021.93
France	.....	27.58	29.91	.....	17.80
West Germany	755.58	2,201.52	1,053.70	41.66	3.87
Spain	19.46	1.29	.....	.....	526.53
Italy	12.24	45.49	61.05	109.98	—
Greece	.....	2.70	19.77	14.95	517.42
Austria	.....	.....	.....	333.17	24.21
ASIA					—
Japan	44,114.23	49,703.85	33,189.12	51,037.22	—
Philippines Rep.	36.80	185.22	190.95	33.60	—
Korea	15.15	.....	310.80	.....	229.33
China-Taiwan	17.61	77.80	398.99	3.01	—
AUSTRALIA & OCEANIA					135.78
Australia	159.50	289.98	305.48	74.36	15.96
New Zealand	.....	38.74	58.28	.....	17.10
AFRICA					51,011.63
Nigeria	.....	27.95	75.53	258.29	489.86
Rep. of S. Africa	10.69	2,357.98	2,557.62	732.81	10.65
Others	84.45	114.98	79.88	152.71	—
TOTAL	48,311.16	66,917.64	56,063.47	62,344.67	—
					3.34
					61,564.80

HARIMA

Tall Oil Fatty Acids
Tall Oil Rosins
Paper Chemicals
Paint Resins
Ink Resins
Adhesive Resins
Synthetic Rubber Emulsifiers

HARIMA CHEMICALS, INC.
4-21 DOSHO-MACHI, HIGASHI-KU, OSAKA, JAPAN
TELEX:0522-2339 HARIMA J CABLE:HARIMAKASEI PHONE(06)201-2461

Exports—U.S. Tall Oil Fatty Acids (Lbs.)

	1979		1980		1981	
	Over 2% Rosin	Under 2% Rosin	Over 2% Rosin	Under 2% Rosin	Over 2% Rosin	Under 2% Rosin
NORTH AMERICA						
Canada	3,816,376	3,767,025	3,154,627	3,620,990	1,509,458	3,421,916
Mexico	166,376	6,631,222	296,047	7,045,160	478,249	6,892,998
Guatemala	10,522	80,420	.....	17,200	84,927	8,600
El Salvador	30,531	445	18,180	.....	12,000	—
Honduras	871	.....	38,224	.....	14,703	—
Costa Rica	88,150	.....	47,101	262,660	102,907	43,935
Dominican Republic	2,280	.....	882	.....	103,152	—
Trinidad	800	12,750	8,499	.....	10,020	—
Antilles	6,150	.....	.....	23,100	—	27,300
SOUTH AMERICA			6,150	.....	17,200	—
Columbia	2,500,370	147,084				
Venezuela	1,397,093	1,258,969	2,016,055	34,340	1,854,283	21,840
Ecuador	34,850	.....	1,053,142	2,224,919	951,686	1,434,010
Peru	77,490	37,900	37,719	.....	—	2,526
Brazil	196,575	1,271,160	181,465	5,040	75,460	—
Argentina	106,190	785,925	880	.....	24,190	—
Guyana	.....	2,520	44,280	1,653,981	82,685	19,356
EUROPE			75,030	277,786	3,926	—
Sweden	69,700	.....			110,290	551,640
Finland	239,930	.....	32,800	.....	134,694	631,818
Denmark	4,800	.....	29,520	.....		
United Kingdom	6,657,771	3,917,901	4,038,353	3,639,082	56,990	110,040
Netherlands	173,430	9,850,004	187,330	12,286,613	15,580	—
Belgium	77,080	844,060	88,560	2,300,868	2,880	—
France	2,681,183	44,873	127,102	1,148,512	1,315,548	347,700
West Germany	2,983,736	6,288,236	1,636,117	4,574,143	4,100	—
Spain	67,472	68,254	3,375	377,200	841,850	10,566,803
Portugal	3,400	.....	8,860	.....	61,453	—
Italy	829,461	.....	6,800	.....	2,575,474	66,780
Greece	4,501	246,000	292,400	.....	1,738,050	4,093,890
Switzerland	.....	.....	6,560	4,200	4,500	—
ASIA					13,530	—
Israel	12,834	10,821	3,312	.....	6,918	—
India	73,900	102,367	68,199	72,160	22,050	339,194
Thailand	4,200	.....	.....	4,200	4,500	—
Singapore	270,906	.....	13,100	.....		
Philippine Rep.	191,604	585,720	.....	110,458	6,560	241,657
Korean Rep.	101,862	1,992,576	113,158	80,014	154,350	—
China (Taiwan)	70,614	410,000	282,090	814,960	17,660	71,920
Japan	2,356,401	3,649,190	68,821	215,327	—	101,640
AUSTRALIA & OCEANIA			2,647,830	2,894,120	117,118	155,488
Australia	1,361,147	691,558	936,785	883,446	151,084	805,186
New Zealand	193,577	116,840	97,028	20,982	176,339	431,778
AFRICA					2,082,346	5,775,198
Morocco	105,780	.....			1,651,804	1,171,829
Zaire	308,280	.....	157,360	.....	386,880	22,522
Rep. of S. Africa	959,692	22,140	330,540	.....		
Other	.....	844	1,478,530	47,474	44,280	—
TOTAL	28,228,885	42,836,804	19,632,811	44,638,935	—	21,840
					4,679,541	137,760
					21,701,215	37,517,164

dmi

naval stores dept.

de monchy international b.v.

meent 106 p.o. box 762 rotterdam 3001 cables: monchy telephone 010 - 13 03 20 telex 21203 mchy nl

U.S. Exports—Terpenic Solvent Mixtures (1,000 Lbs.)

	1979	1980
Australia	197,970	132,992
Belgium	558,074	340,056
Brazil	1,713,531	503,161
Canada	891,870	1,053,055
Fed. Rep. of Germany	4,651,843	3,682,893
France	339,512	176,301
Guatemala	708,100	.....
Italy	3,166,224	691,932
Japan	996,108	561,370
Mexico	127,609	115,031
Netherlands	264,672	107,680
Nicaragua	836,528	1,330,188
Saudi Arabia	.....	119,115
South Africa	783,542	.....
Spain	159,793	108,423
Switzerland	135,921	.....
Trinidad	.....	586,700
U. Kingdom	9,276,376	9,255,135
Other Countries	902,809	797,037
Total	25,705,482	19,561,069

U.S. Exports—Polyterpene Resins (1,000 Lbs.)

	1979	1980
Australia	212,370	97,000
Belgium	498,844	.....
Canada	1,140,000	1,065,785
Fed. Rep. of Germany	959,125	1,034,350
France	362,501	.....
Hong Kong	726,180	.....
Indonesia	.....	341,700
Japan	673,060	184,710
Korea	820,072	.....
Mexico	971,247	189,465
Netherlands	903,656	533,625
South Africa	.....	125,279
Sweden	.....	122,078
Taiwan	2,883,647	737,323
U. Kingdom	639,381	521,379
Other Countries	968,025	533,280
Total	11,758,508	5,485,974

U.S. Exports—Pine Oil

	1976	1977	1978	1979	1980
Argentina	95	127	65	553	390
Australia	126	166	137	742	605
Brazil	761	618	971	1,271	1,697
Canada	.....	.....	1,073	1,028	1,877
Chile	27	90	52	68	.....
Colombia	69	77	65	406	285
Costa Rica	28	30	.....	.....	119
Dominican Rep.	.....	37	.....	64	297
France	.....	310	.....	.....	.....
F.R. Germany	200	288	352	417	966
Italy	51	.....	.....	46	62
Mexico	.....	.....	232	133	175
Netherlands	.....	27	35	.....	.....
N. Zealand	.....	31	.....	.....	63
Peru	29	29	46	305	257
South Africa	80	106	148	323	607
Surinam	.....	.....	59	78	80
Sweden	59	.....	.....	156	334
U.K.	604	645	792	1,266	960
Venezuela	172	113	152	506	763
Others	994	936	237	846	850

Average Prices: Gum, Rosin and Turpentine

	Crude Gum (Dollars per Bbl.)	Gum Rosin (Dollars per 100 Lbs.)	Gum Turpentine (Dollars per Gal.)
1970-71	47.37	15.03	1.20
1971-72	51.14	16.93	1.20
1972-73	55.17	18.89	1.05
1973-74	60.97	22.72	.81
1974-75	84.36	35.92	1.39
1975-76	59.59	25.15	1.59
1976-77	59.46	24.46	1.43
1977-78	65.46	25.35	1.43
1978-79	67.86	27.54	1.61
1980	89.91	42.00	2.50
1981	102.00		

The WHITE SEA & BALTIC COMPANY Limited

IMPORTERS, EXPORTERS and DISTRIBUTORS

Turpentine
Pine Oil
Dipentene
Terpene Chemicals

Tall Oils & Fatty Acids
Pine Tars
Rosin
Resins & Pitches

Concordia Works, Parkinson Approach, Garforth, Leeds LS25 2HR

Tel. 0532-87001 International Telex: 556130 AB WSBLDN G

Tall Oil Fractionators

UNITED STATES

	Capacity* (Short Tons) 1978	1981
ARIZONA CHEMICAL COMPANY		
Panama City, Florida	105,000	105,000
Spring Hill, Louisiana	45,000	45,000
GEORGIA-PACIFIC		
Crossett, Arkansas	—	39,000
HERCULES INCORPORATED		
Franklin, Virginia	65,000	65,000
Hattiesburg, Mississippi	60,000	60,000
Portland, Oregon	30,000	30,000
Savannah, Georgia	65,000	65,000
Burlington, Ontario	17,000	17,000
MONSANTO-EMERY		
Nitro, West Virginia	65,000	65,000
REICHHOLD CHEMICALS, INC. (Newport Division)		
Bay Minette, Alabama	35,000	40,000
Oakdale, Louisiana	60,000	60,000
SYLVACHEM CORPORATION		
Port St. Joe, Florida	100,000	110,000
UNION CAMP CORPORATION		
Savannah, Georgia	105,000	105,000
WESTVACO CORPORATION		
Charleston, S.C.	85,000	85,000
DeRidder, Louisiana	55,000	55,000

* Based on Crude Tall Oil input

EUROPE

	Capacity (Metric Tons) 1978	1980
AUSTRIA		
Krems Chemie/Krems a.d. Donau	11,000	13,000
BULGARIA		
Velingrad	4/5,000	4/5,000
FINLAND		
Enso-Gutzeil Osaheyhtio/ Imatra	32,000	32,000
Oulu Osakeyhtlo/Oulu	36,000	36,000
Valke/Valkeakoski	15,000	15,000
FRANCE		
Les Derives Resiniques & Terpeniques/ Dax	15,000	15,000
ITALY		
Societa Italo Americana Lavorazlone Grassi Avenza/ Avenza di Carrara	12,000	10,000
NETHERLANDS		
Sheby-Kemi B.V./ Wormerveer	40,000	Shut down
NORWAY		
M. Peterson & Sons/ Moss	20,000	20,000
POLAND		
Zaklada Celulozowo/ Swiecie	12,000	12,000
PORTUGAL		
Alegra S.A./Lisbon	3,000	3,000(?)
ROMANIA	3,000	3,000
SWEDEN		
Bergviks Hartsprodukter/ Sandarne	90,000	120,000
Garvamnes AB Welbull/ Landskrona	12,000	Shut down
UNITED KINGDOM		
British Oxygen/ Chester-le-Street	50,000	50,000
WEST GERMANY		
Huttenes-Albertus Werke/ Hannover	4,000	3,500
Akzo/Emmerich	11,000	Shut down

ASIA

JAPAN		
Arakawa Chemical Industries Ltd./ Osaka	15,000	15,000
Harima Chemicals Inc./ Kakogawa	20,000	20,000
Harima M.I.D./ Kakogawa	70,000	70,000
U.S.S.R.	66,000	66,000

DREW
Forest Chemicals Laboratory, Inc.
Suite 2-3, 6653 Powers Ave. Jacksonville, Florida 32217
CONSULTING AND ANALYTICAL SERVICES INTERNATIONALLY
Providing specialized services in the recovery and processing of silvachemicals
JOHN DREW, P.E.

B.C. CHEMICALS LTD.

MANUFACTURER
OF
SODIUM CHLORATE
AND
CRUDE TALL OIL

P.O. BOX 6000
PRINCE GEORGE, B.C.
CANADA
V2N 2K3

TELEX: 047-8687

PHONE: (604) 563-0607

REICHHOLD

FOR A FULL LINE OF NAVAL STORES CHEMICALS

ROSINS
□
RESINS
□
PINE OILS
□
TERPENES
□
TERPENE HYDROCARBONS
□
RUBBER CHEMICALS
□
PAPER CHEMICALS

Reichhold Chemicals, Inc.

NEWPORT DIVISION
P.O. Box 1433
Pensacola, Florida 32596

Section 4
U. S. Naval Stores Imports

Gum Rosin Metric Tons

Country of Origin	1976	1977	1978	1979	1980
Canada	—	—	—	94,815	—
Mexico	720	2,145	2,432	1,275	485
Honduras	46	149	84	1,631	395
Nicaragua	3,587	1,634	6,608	1,303	7,031
France	77	—	82	2	123
Portugal	477	2,116	7,560	2,822	2,087
China	2,758	9,634	8,599	16,795	13,373
Hong Kong	—	—	—	1,541,295	—
Taiwan	44	5	6	445	158
Other Countries	152	621	80	1,651	638
Total	7,860	16,305	24,451	25,923	24,289

* Includes 620 from Belize

Gum Turpentine (Spirits) Metric Tons

	1976	1977	1978	1979	1980
Canada	1,000	20	8	—	25
Mexico	917	274	359	285	126
Honduras	2	—	33	78	36
Portugal	548,690	—	30,662	—	—
Greece	—	—	1,420	—	—
China	—	—	—	17	62
Hong Kong	—	—	—	17	41
Others	549	—	32	4	51
Total Imports	1,468	294	433	400	343

BACHNER OIL PRODUCTS AB

Your source for

Tall Oils and Fatty Acids • Pine Tars • Rosins • Terpene Derivatives

Address: Sandelsgatan 26, S-115 33 STOCKHOLM
Cables: Bachneroil Stockholm
Telex: 198 13 BOP S

Section 5
World Naval Stores

- Production
- Consumption
- Exports
- Imports

(Editor's Note: **All figures expressed in metric tons unless otherwise indicated.)**

Argentina

PRODUCTION

	Gum Rosin	Turpentine	Pine Oil
1971	40		
1972	80		
1973	120		
1974	250		
1975	500		
1976	750		
1977	1,200		
1978	2,000		
1979	3,500		
1980	4,200	1,100	600
1981	5,000	1,300	700

IMPORTS

	Gum Rosin	Turpentine	Pine Oil
1970	7,454	.....	.....
1971	10,238	.....	.....
1972	7,553	.....	.....
1973	6,939	.....	.....
1974	9,563	279	584
1975	7,442	19	391
1976	6,148	17	313
1977	3,212	0	412
1978	4,890	6	207
1979	3,000	11	83
1980	2,300	.....	225
1981	1,000		30

CONSUMPTION

	Gum Rosin	Turpentine	Pine Oil
1971	10,278		
1972	7,633		
1973	7,059		
1974	9,813		
1975	7,942		
1976	6,898		
1977	4,412		
1978	6,890		
1979	6,500		
1980	6,500	1,100	.....
EXPORTS			
1981	500	30	20

Austria

IMPORTS

	Gum Rosin	Turpentine	Tall Oil
1971	5,179	1,193	4,353
1972	2,882	215	5,698
1973	5,017	818	7,420
1974	5,679	293	8,694
1975	2,665	.....	6,733
1976	5,552	18	8,193
1977	4,416	78	6,122
1978	3,455	51	12,680
1979	26	22	978
1980	1.418	210	10,445
1981	1,417	326	13,784

EXPORTS

	Gum Rosin	Turpentine	Tall Oil
1971	240	167	655
1972	100	122	561
1973	20	644	486
1974	1,077	143	621
1975	270	190	103
1976	0	.....	349
1977	0	.....	220
1978	7	.....	598
1979	11	65	43
1980	178	.....	656
1981	195	125	416

Belgium

IMPORTS

	Rosin	Turpentine
1973	4,638	746
1974	3,352	720
1975	1,140	568
1976	3,033	616
1977	2,138	711
1978	1,447	.....
1979*	1,234	689
(*Note: 1979 figures do not include Dec. Imports.)		
1980	3,215	646
1981	2,710	694

Brasil

IMPORTS

	Gum Rosin	Tall Oil Rosin	Turpentine	Pine Oil
1971	11,863	.....	.....	.....
1972	13,500	.....	.....	.....
1973	22,338	.....	253	.....
1974	45,935	.....	.....	.....
1975	8,645	.....	.....	.....
1976	23,972	.....	.....	.....
1977	19,202	.....	.....	.....
1978	32,007	1,373	15	4,889
1979	33,390	2,900	14,000	5,375

When you need rosin, depend on PDM.

PDM supplies gum rosin, turpentine, and other naval stores to a wide range of industries. But unlike other naval stores suppliers, rosin is our principal commodity. And because we're not linked to any single source of supply, we can get rosin. When others can't. Portuguese. Honduran. Chinese. As well as the home grown kind.

So the next time you're in the market for rosin, give PDM a call. We can give you what you want, when and where you need it.

PDM
INCORPORATED

3512-8 SILVERSIDE ROAD
WILMINGTON, DELAWARE 19810
PHONE (302) 478-0768
TELEX 835-459
TWX 510-666-2290 CLEAVEROZ WIL

Walter L. Cleaver, Sr.
President

Canada

IMPORTS (1,000 lbs.)

	Rosin	Turpentine	Tall Oil, Pitch
1975	9,897	2,040	5,244
1976	12,364	2,906	6,280
1977	13,021	2,041	1,669
1978	13,557	2,098	2,574
1979	13,936	1,664	3,073
1980	10,734	1,564	2,497
1981	4,757	515	1,184

OTHER IMPORTS — Canada also imported 10.3 million pounds of rosin sizing in 1978 and 10.2 million pounds in 1979; and 4.06 million pounds of Pine Oil in 1979.
EXPORTS — Canada exported 198,065 pounds of natural gum and resins in 1977 and 280,169 pounds of same in 1978.

Finland

PRODUCTION

	Crude Turpentine	Crude Tall Oil	Tall Oil Rosin
1970	11,071	69,097	10,838
1971	8,804	70,066	18,070
1972	9,313	74,927	17,580
1973	10,287	80,535	17,315
1974	11,620	84,783	15,214
1975	8,544	71,282	9,892
1976	9,172	74,568	15,073
1977	6,624	66,726	14,875
1978	7,907	86,904	13,515
1979	10,920	111,584	N.A.
1980	11,567	117,265	22,820
1981	11,749	117,408	23,614

EXPORTS

	Turpentine (All Types)	Tall Oil Rosin	Tall Oil
1970	5,997	10,771	34,851
1971	4,156	11,036	29,356
1972	3,532	10,690	28,276
1973	6,652	6,320	17,944
1974	9,949	5,691	41,527
1975	6,374	4,176	32,906
1976	7,829	8,910	32,880
1977	4,795	1,996	36,365
1978	9,575	8,669	39,810
1979	10,821	18,834	38,806
1980	10,258	14,942	40,582
1981	12,555	19,145	41,481

IMPORTS

	Rosin
1970	1,527
1971	2,912
1972	3,850
1973	2,821
1974	1,648
1975	2,401
1976	1,391
1977	358
1978	1,097
1979	753
1980	509
1981	864

France

PRODUCTION

	Rosin	Turpentine
1970	20,000	4,000
1971	14,640	3,700
1972	12,740	3,230
1973	11,700	3,100
1974	8,750	2,232
1975	8,770	2,244
1976	7,490	1,885
1977	3,000	850
1978	2,660	680
1979	2,380	610
1980	2,100	540
1981	1,980	510

CONSUMPTION

	Rosin	Turpentine
1970	32,500	14,000
1971	34,248	12,370
1972	35,763	14,891
1973	36,000	14,000
1974	38,000	15,700
1975	20,481	6,232
1976	35,378	13,960
1977	22,300	8,450
1978	29,440	9,200
1979	30,270	9,600
1980	26,984	8,046
1981	21,764	8,179

Greece

PRODUCTION

	Gum Rosin	Turpentine
1970	15,750	3,825
1971	15,680	3,808
1972	14,300	3,470
1973	11,070	2,704
1974	11,866	2,967
1975	10,812	2,613
1976	10,919	2,277
1977	8,618	1,705
1978	5,840	1,138
1979	6,306	1,269

EXPORTS

	Gum Rosin
1970	14,376
1971	9,446
1972	14,630
1973	9,951
1974	11,602
1975	5,969
1976	6,331
1977	4,502
1978	5,893
1979	2,718

F. R. Germany

IMPORTS

	Rosin	Turpentine
1970	100,832*	9,949
1971	100,002	9,241
1972	92,144	5,884
1973	119,319	6,633
1974	99,523	6,903
1975	65,583	4,715
1976	61,642	4,732
1977	55,702	2,636

	Rosin			Turpentine	
	Gum	Wood	Tall Oil	Gum	Sulfate
1978	47,420	1,536	10,338	1,728	951
1979	49,629	794	16,565	1,885	60
1980	51,863	2,000	19,129	1,919	98

Arizona

Resin esters | Terpene resins

Pine Oil | Rosin

ARIZONA CHEMICAL COMPANY
Fair Lawn, N.J. 07410

T&R BRAND

T&R CHEMICALS INC.

SUPPLIERS OF
GUM TURPENTINE
AND
GUM ROSIN

P.O. BOX 330 CLINT, TEXAS 79836
TELEPHONE: 1-800-351-6025
IN TEXAS CALL COLLECT: (915) 851-2761
TELEX: 749-355

Import, Export of Rosin, Turpentine
and Petroleum

LEVITA CHEMICAL
INTERNATIONAL N.V./S.A.

UNION BUILDING MEIRBRUG, 1-B40

B 2000-ANTWERPEN, BELGIUM

CABLES: RESINATERP PHONE: (031) 339373

ANTWERPEN TELEX: 33090 B

Heybroek & Co's Handel Maatschappij N.V.

Heybroek & Co's
Handel Maatschappij N.V.

Leidsegracht 38-40
P.O. Box 555
1000 AN Amsterdam

Telephone:
Amsterdam 24 69 73
Telex:
11494 (Heybr NI)
Telegraphic Address:
Bruneila Amsterdam

International suppliers of
Gum Rosin
and
Turpentine

Heybroek

India

PRODUCTION

	Oleoresin	Gum Rosin	Gum Turpentine
1970	43,507	32,627	6,693
1971	34,000	25,500	5,440
1972	50,000	37,500	8,000
1973	48,970	36,728	12,242
1974	55,000	41,250	13,750
1975	75,000	56,250	18,750
1976	63,584	47,700	15,884
1977	56,800	42,600	14,200
1978	50,000	37,500	7,499
1979	48,000	36,000	7,200
1980	46,000	34,500	6,900
1981		31,125	6,225

CONSUMPTION	Rosin	Turpentine
1974	41,251	13,750
1975	46,500	18,750
1976	47,700	10,149
1977	42,600	9,066
1978	41,000	7,499
1979	36,000	7,200
1980	41,500	6,900
1981	30,000	6,225

About 90 per cent of turpentine produced in India is consumed for Camphor and Terpene Chemicals; balance 10 per cent is used by the boot polish, varnish and pharmaceutical industries. Consumption of Gum Turpentine has increased and the country is importing about 1,000 Metric Tons of Turpentine/Alpha Pinene.

Japan

IMPORTS

	Rosin	Turpentine Oil	Crude Tall Oil
1970	81,813	8,116	23,307
1971	70,559	6,490	21,119
1972	70,182	5,341	27,537
1973	93,667	7,596	36,819
1974	70,861	8,459	47,974
1975	38,569	3,555	38,288
1976	64,945	6,126	45,904
1977	59,956	7,728	52,480
1978	57,780	5,731	54,325
1979	73,008	6,786	65,668
1980	56,931	6,517	67,025
1981	57,934	6,340	59,244

Mexico

PRODUCTION

	Pine Gum	Gum Rosin	Turpentine
1970	1,000	44,979	8,000
1971	.....	45,765	8,500
1972	.....	48,000	9,000
1973	.....	43,500	9,800
1974	65,055	45,438	11,059
1975	63,915	44,740	10,865
1976	56,207	39,344	9,555
1977	57,000	39,900	9,690
1978	57,500	40,250	9,775
1979	60,040	42,028	10,207
1980	61,267	42,886	10,415
1981	64,840	45,388	

EXPORTS	Rosin
1974	32,382
1975	9,345
1976	31,127
1977	25,046

Netherlands

IMPORTS

	Rosin (Gum & Tall Oil)	Rosin (Wood)	Turpentine	Crude Tall Oil
1970	27,018	.....	726	.....
1971	22,632	.....	649	.....
1972	22,460	.....	487	.....
1973	21,385	.....	321	.....
1974	32,698	.....	442	37,918
1975	11,930	.....	170	30,782
1976	20,225	.....	244	.....
1977	16,830	.....	251	24,111
1978	14,938	2,211	334	5,372
1979	16,259	1,575	248	3,598
1980	16,647	3,517	211	3,027

EXPORTS

	Rosin	Other Rosins and Pitch	Crude Tall Oil	Turpentine
1974	950	3,141	2,342	49
1975	835	1,484	1,507	.....
1976	1,105	814	1,431	25
1977	3,159	494	2,688	22
1978	2,193	265	582	32
1979	599	1,897	1,356	81
1980	1,119	525	12	56

Norway

PRODUCTION

	Tall Oil	Sulfate Turpentine
1970	5,511	207
1971	2,892	432
1972	2,398	625
1973	.....	457
1974	.....	491
1975	.....	589
1976	.....	656
1977	.....	707
1978	.....	.....
1979	.....	.....

IMPORTS

	Rosin	Turpentine	Crude Tall Oil
1970	3,065	146	.....
1971	3,878	314	.....
1972	3,090	182	.....
1973	4,213	319	.....
1974	4,249	221	12,711
1975	3,284	201	12,060
1976	3,553	193	.....
1977	1,828	213	.....
1978	1,532	209	14,817
1979	1,237	307	17,239
1980	906	212	19,336
1981	963	132	16,605

EXPORTS

In 1979, tall oil exports totaled 2,843 metric tons and turpentine exports totaled 413 metric tons. Other exports in 1979: 1,667 metric tons abietic acid, and 1,212 metric tons resinates.

1980	1,920	344
1981	2,306	263

SOCER --Sociedade Central de Resinas

S. A. R. L.

EUROPE'S BIGGEST PROCESSORS, EXPORTERS

OF

GUM ROSIN

AND

GUM TURPENTINE

AV. ANTONIO AUGUSTO de AGUIAR 19, 1
P-1003 LISBOA CODEX
PORTUGAL

Telephone: 57 80 88
Cable Address: COLOFON - LISBOA

P.O. BOX 1144
Telex No.: 12 203 SOCER P

INDUSTRIA RESINERA BAHR S.A.

(32 Years Experience in the Industry)

Leading Manufacturer and Exporter
of ALL GRADES OF HONDURAS ORIGIN GUM ROSIN
and GUM TURPENTINE
RESIBAHR — Quality Products Worldwide

P.O. Box 143, Tegucigalpa, Rep. Honduras, C.A.
Cable: BAHR Telex: 1196 RESIBAHR HT
Telephones: 32-27-89, 32-54-51

People's Republic of China

PRODUCTION

	Rosin*	Turpentine*
1970	150,000	30,000
1971	160,000	32,000
1972	170,000	34,000
1973	180,000	36,000
1974	180,000	35,000
1975	110,000	15,000
1976	110,000	10,000
1977	110,000	10,000
1978	200,000	45,000
1979	250,000	55,000

EXPORTS

	Rosin	Turpentine
1974	143,360	25,266
1975	72,304	3,883
1976	99,938	1,170
1977	92,013	2,377

Portugal

PRODUCTION

	Gum	Rosin	Turpentine
1971	111,318	86,472	20,513
1972	120,751	95,403	22,970
1973	137,828	109,170	26,026
1974	138,963	108,002	25,682
1975	137,779	108,874	26,229
1976	100,319	78,848	18,070
1977	123,968	91,851	21,510
1978	96,280	75,257	17,325
1979	105,763	83,099	19,341
1980	120,000	94,000	22,000
1981	134,339	93,014	21,137

EXPORTS

	Rosin	Turpentine
1970	81,094	7,787
1971	76,158	12,644
1972	87,948	15,482
1973	97,421	16,583
1974	108,576	15,377
1975	49,955	9,389
1976	84,581	18,743
1977	65,793	13,007
1978	109,312	10,558
1979	92,334	13,474
1980	79,274	9,648
1981	73,879	14,523

United Kingdom

IMPORTS

	Rosin	Turpentine
1973	43,407	536
1974	41,752	830
1975	20,206	1,078
1976	37,824	1,118
1977	36,479	533
1978	34,143	—
1979	35,299	616
1980	33,127	665

Spain

PRODUCTION

	Gum	Rosin	Turpentine
1970	.....	31,500	9,000
1971	40,900	27,000	7,000
1972	40,000	28,000	8,000
1973	42,000	29,400	8,400
1974	42,000	29,400	8,400
1975	39,000	24,500	7,000
1976	33,600	28,000	5,600
1977	13,200	11,000	2,200
1978	21,300	12,700	4,000
1979	20,000	13,250	4,200
1980	26,000	18,200	5,200
1981	25,000	17,500	5,000

Sweden

PRODUCTION

	Crude Tall Oil	Crude Sulfate Turpentine
1977	136,000	6,675
1978	150,000	7,950
1979	157,140	9,109
1980	141,400	9,397

IMPORTS

	Gum and Wood Rosin	Tall Oil Rosin	Turpentine
1977	1,808	659	311
1978	346	2,167	.....
1979	974	2,192	.....
1980	991	2,039	

EXPORTS

	Crude Tall Oil	Tall Oil Rosin	Crude Sulfate Turpentine
1977	50,462	9,165	.....
1978	52,793	.....	9,760
1979	47,959	.....	10,149
1980	46,469	.....	11,365

Switzerland

IMPORTS

	Rosin	Turpentine Oil	Tall Oil
1970	5,173	810	428
1971	5,210	770	302
1972	4,214	825	33
1973	5,471	881	91
1974	4,717	837	39
1975	2,954	190	63
1976	2,883	467	95
1977	3,423	494	269
1978	3,871	642	74
1979	3,879	503	153
1980	3,657	571	276
1981	3,054	431	353

RESINERA MAYA, S.A.
PROCESSORS-EXPORTERS

OF

GUM ROSIN

AND

GUM TURPENTINE

P. O. BOX 811
TEGUCIGALPA, REPUBLIC OF HONDURAS

Telephone: 32-5407/32-5482
Cable Address: RESIMA

Telex No.: 1144-RESIMA H.T.

LANGLEY-SMITH & CO., LTD.

"LANGLEY HOUSE," 19/21 CHRISTOPHER ST.
FINSBURY SQUARE, LONDON, EC2A 2BT

Telephone:
London, 247-7473

Telex:
Lanroz London 883013

Telegraphic Address:
Langroz London, E. C. 2

Importers of

ROSIN

OF ALL TYPES FROM ALL ORIGINS

Sole Distributors in the United Kingdom

FOR NAVAL STORES RESINS AND LIQUID PRODUCTS

Manufactured By

HERCULES INCORPORATED

INDEX TO ADVERTISERS

American Turpentine Farmers Association 10
Arizona Chemical Company 27
Bachner Oil Products 23
B. C. Chemicals 22
Brandau Y Compania, S.A. 17
Chevron Chemical Co. 12
Continental Turpentine and Rosin Corp. 4
De Monchy International b.v. 19
Drew Forest Chemicals Laboratory 21
El Pino, S.A. 17
FRP Company . . . . . C-II
Florida Drum Co., Inc. 16
Georgia-Pacific Corp. . . . . C-III
SCM Terpene Products Group . . . . . C-IV
Harima Chemicals, Inc. 18
Hercules 2
Heybrook & Co. 27
Industria Resinera Bahr S.A. 29
International Development Assoc. 5
Langley-Smith Co., Ltd. 31
Lawrence, Ray V. 13
Levita International NV/SA 27
PDM Trading 25
Pound, A. V., & Co., Ltd. 32
Rausch Naval Stores Co., Inc. 6
Riechhold Chemicals, Inc., Newport Division 22
Resinera Maya, S.A. 31
SCM . . . . . C-IV
SOCER - Sociedade Central de Resinas. 29
Sylvachem Corp. 9
Union Camp Corporation 3
Unries 7
White Sea & Baltic Co., Ltd., The 20
Willers, Engel & Co. 17
Yasuhara Yushi Kogyo Co., Ltd. 8

A. V. POUND & CO., LTD.

128 Malden Road
New Malden, Surrey, KT3 6DB
England

IMPORTERS
OF

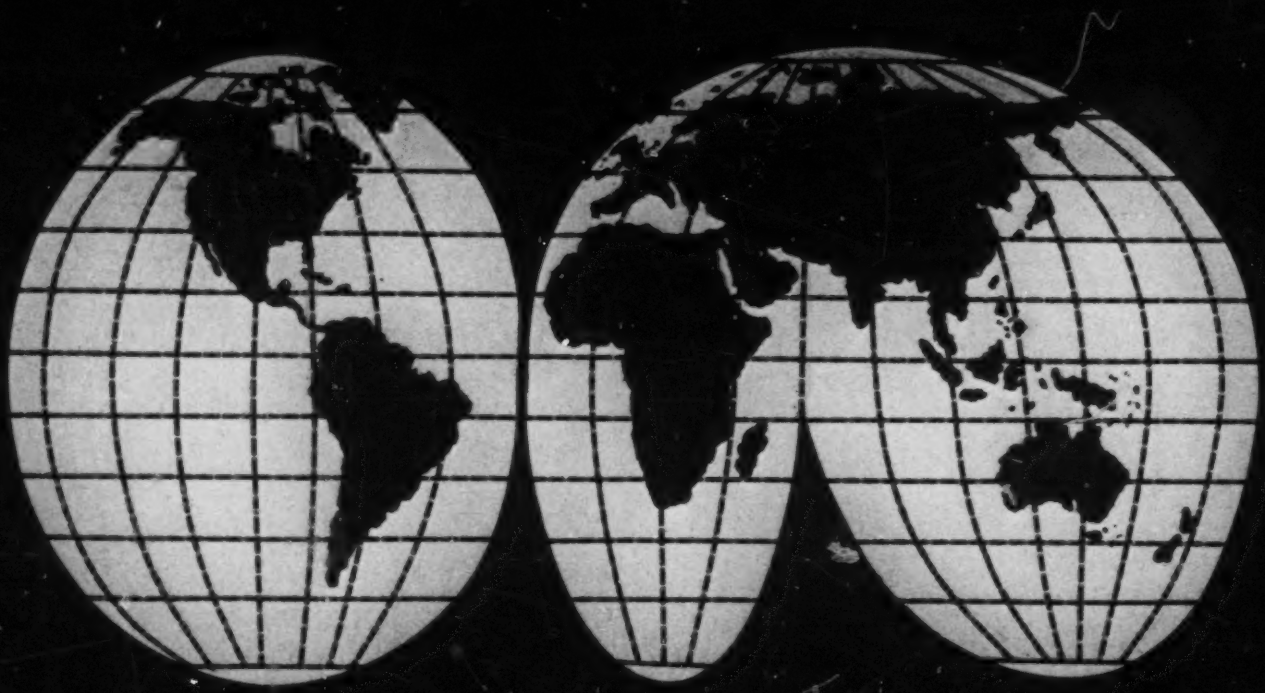
ROSIN, TURPENTINE AND TERPENE DERIVATIVES
OF ALL ORIGINS

Exclusive Agents in the United Kingdom
for Naval Stores Produced by
REICHHOLD CHEMICALS INC.
NEWPORT DIVISION
Pensacola, Florida

Telephone: **01-949 3121/5**

Telex: **929848 POUND G**

Cables: **Pugnacious New Malden**



ANYWHERE IN THE WORLD...

Georgia-Pacific

From our plant in Crossett, Arkansas we can supply quality fractionated tall oil products wherever you need them.

We manufacture distilled tall oil and tall oil rosin to supply the growing merchant market. And our tall oil fatty acid is fast becoming a quality leader in the industry.

If your needs are for quality tall oil products, give us a call. We'll supply them by truck, rail or water...

Anywhere.

Contact Ken Colamarino
Georgia-Pacific, Resin Division
P.O. Box 105042, Atlanta, Georgia
404-491-1244.

THIS RENEWABLE RESOURCE GROWS FLAVORS AND FRAGRANCES.

Don't overlook the importance of this seemingly insignificant pine seedling.

It has some big advantages over petrochemically based resources for flavors and fragrances.

First of all, it's replenishable. Renewable. A resource you can count on.

Secondly, it's unaffected by world politics. Which means a supply you can count on at prices that remain fairly stable.

But most important is the commitment behind the resource.

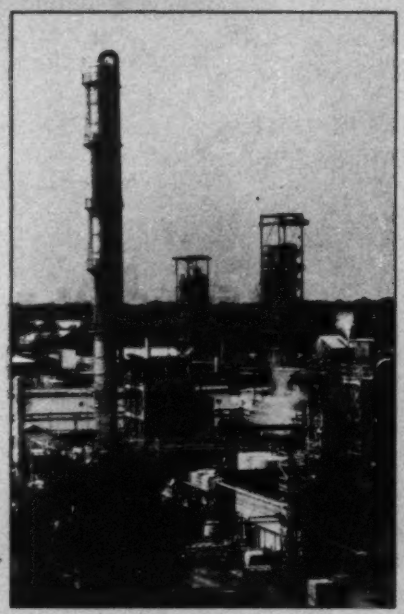
Which in this case is Glidden Organics.

It's a commitment that extends beyond our Jacksonville Processing Facility (see photo). One that goes back to nature herself.

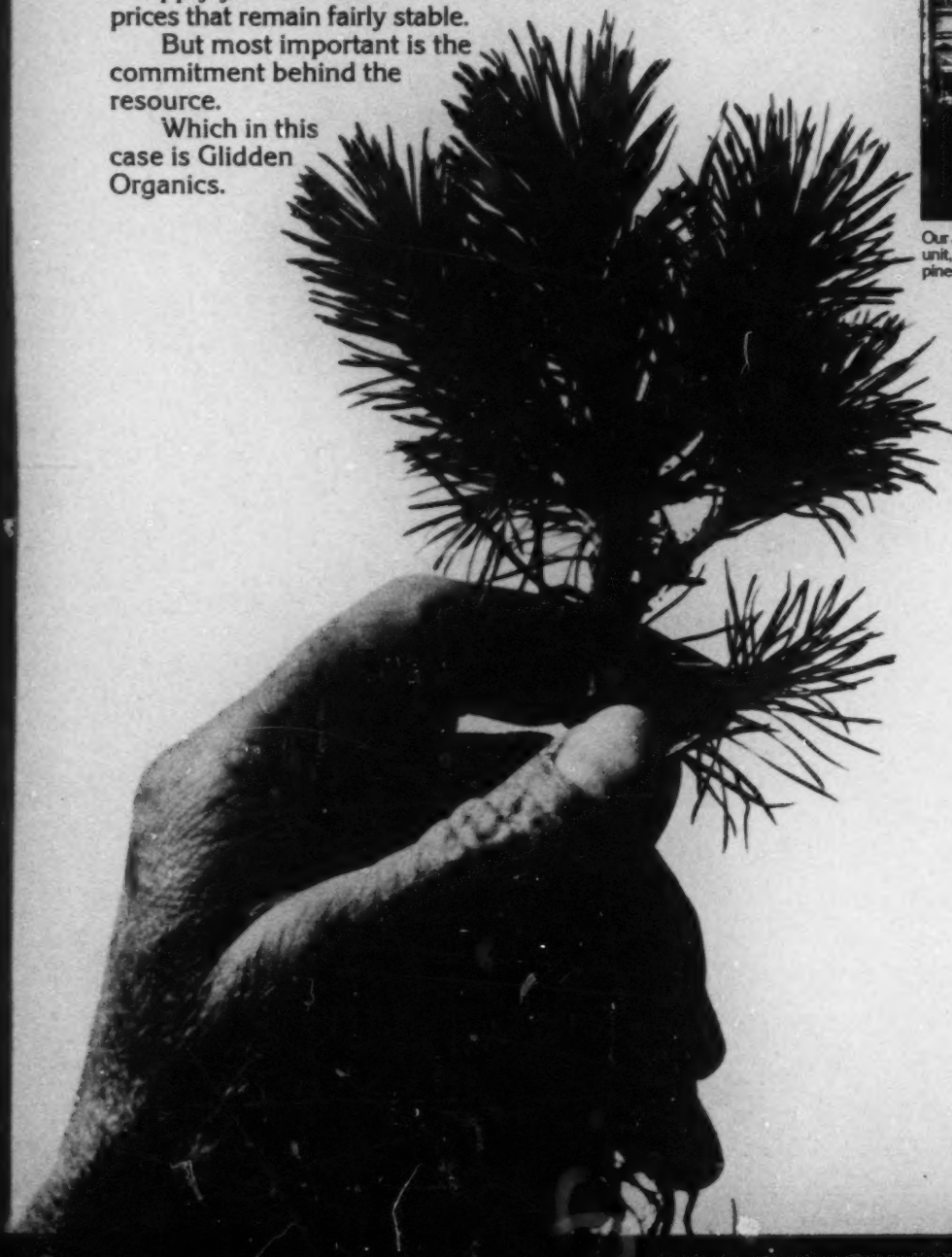
After all, working with nature has gotten us where we are today.

And we have no intention of forgetting that in the days to come.

For your sake as well as ours.



Our Jacksonville facility, the world's largest fractionating unit, isolates the major components alpha- and beta-pinene from sulfate turpentine.



Glidden Organics

SCM TERPENE PRODUCTS GROUP

SCM CORPORATION, P.O. BOX [illegible], JACKSONVILLE, FL [illegible]

C6585-1
errata

Exports—U.S. Crude Tall Oil

(Short Tons)	1981
NORTH AMERICA	
Canada	1,202.12
Mexico	4,577.27
Guatemala	5.31
El Salvador	—
Honduras	—
Costa Rica	—
Panama	9.67
Jamaica	8.40
Haiti	—
Dominican Rep.	3.99
Neth. Antilles	2.10
SOUTH AMERICA	
Colombia	27.17
Venezuela	428.85
Guyana	12.82
Surinam	—
Ecuador	—
Peru	29.33
Chile	—
Brazil	1,186.73
Argentina	24.62
EUROPE	
Sweden	1.16
United Kingdom	0.10
Netherlands	1,021.93
Belgium	17.80
France	3.87
West Germany	526.53
Austria	—
Spain	—
Italy	517.42
Greece	24.21
ASIA	
Iran	—
Israel	—
U. Arab Emirates	—
Pakistan	—
Bangladesh	229.33
Malaysia	—
Philippines Rep.	135.78
Korea	15.96
Hong Kong	—
China-Taiwan	17.10
Japan	51,011.63
AUSTRALIA & OCEANIA	
Australia	489.86
New Zealand	10.65
AFRICA	
Morocco	—
Egypt	—
Ghana	—
Nigeria	—
Rep. of S. Africa	3.34
TOTALS	61,564.80

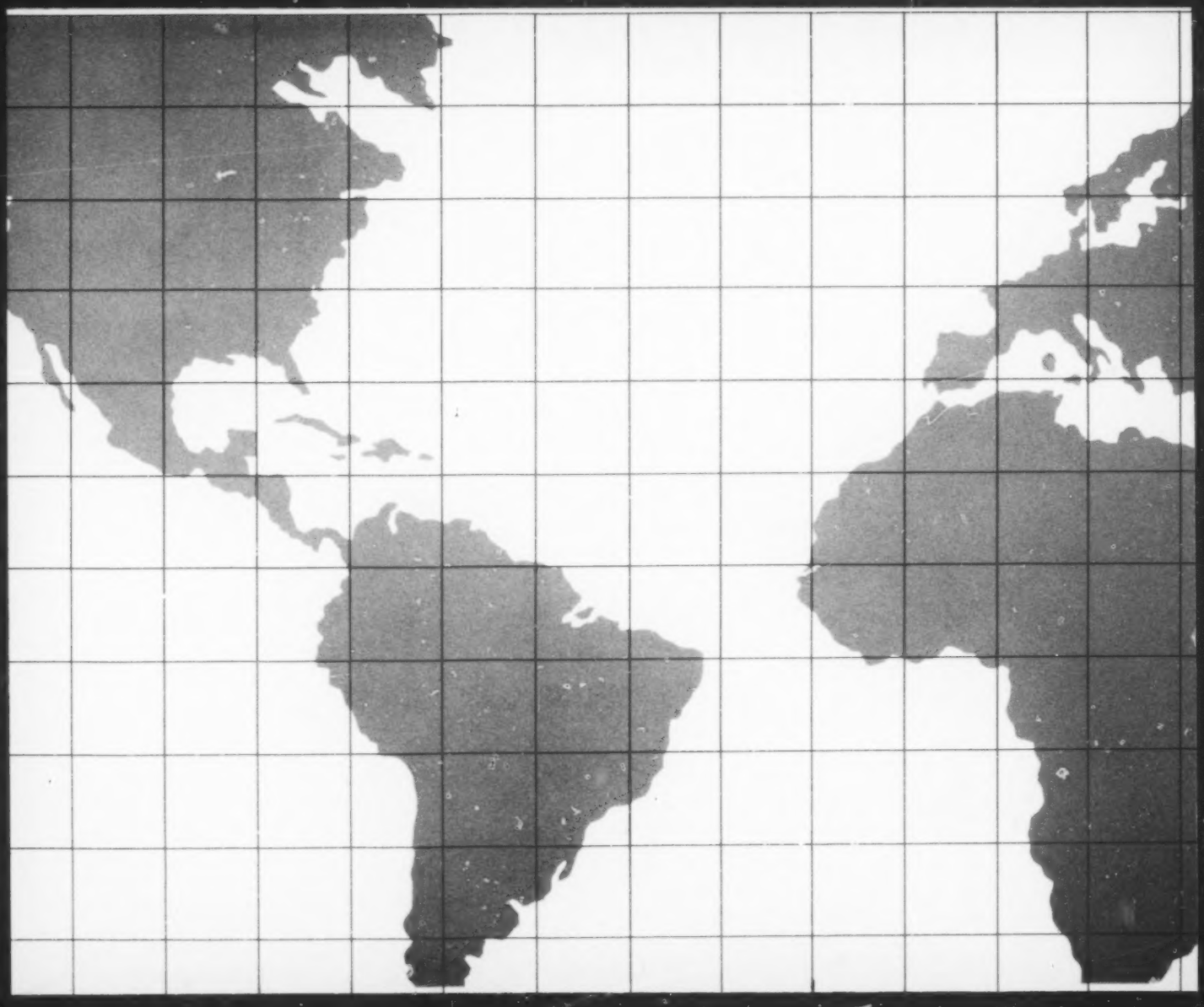
Exports—U.S. Tall Oil Fatty Acids (Lbs.)

	1981	
	Over 2% Rosin	Under 2% Rosin
NORTH AMERICA		
Canada	1,509,458	3,421,916
Mexico	478,249	6,892,998
Guatemala	84,927	8,600
Salvador	12,000—	
Honduras	14,703—	
Costa Rica	102,907	43,935
Jamaica	103,152	—
Dominican Republic	10,020	—
Trinidad	—	27,300
Neth. Antilles	17,200	—
SOUTH AMERICA		
Colombia	1,854,283	21,840
Venezuela	951,686	1,434,010
Guyana	—	2,526
Surinam	75,460	—
Ecuador	24,190	—
Peru	82,685	19,356
Chile	3,926	—
Brazil	110,290	551,640
Argentina	134,694	631,818
EUROPE		
Sweden	56,990	110,040
Norway	15,580	—
Denmark	2,880	—
United Kingdom	1,315,548	347,700
Ireland	4,100	—
Netherlands	841,850	10,566,803
Belgium	61,453	—
France	2,575,474	66,780
West Germany	1,738,050	4,093,890
Switzerland	4,500	—
Spain	13,530	—
Portugal	6,918	—
Italy	22,050	339,194
Yugoslavia	4,500	—
ASIA		
India	6,560	241,657
Malaysia	154,350	—
Singapore	17,660	71,920
Indonesia	—	101,640
Phillipine Rep.	117,118	155,488
Korean Republic	151,084	805,186
China-Taiwan	176,339	431,778
Japan	2,082,346	5,775,198
AUSTRALIA & OCEANIA		
Australia	1,651,804	1,171,829
New Zealand	386,880	22,522
AFRICA		
Morocco	44,280	—
Nigeria	—	21,840
Rep. of S. Africa	4,679,541	137,760
TOTALS	21,701,215	37,517,164

C6585-1(U)A

NAVAL STORES REVIEW

1982 INTERNATIONAL YEARBOOK



BEST AVAILABLE COPY

From The South's Finest Pines

FRP COMPANY

Supplies

FILTREZ®

SYNTHETIC RESINS

Ester Gums
Maleic Resins
Phenolic Resins
Fumaric Resins
Pentaerythritol Resins

World

Famous

FILTROS®

GUM ROSIN

GUM TURPENTINE

FRP COMPANY

P.O. Box 349 Baxley, Ga. 31513

PHONE: 912-367-3616
TELEX: 810-788-5450
CABLE: Filtros-Baxley

NAVAL STORES REVIEW

1982 INTERNATIONAL YEARBOOK

EDITORIAL ADVISORY BOARD

A. B. Doran
James Gillis, Jr.
W. L. Cleaver
Keith T. Smith
Robert P. T. Young
George W. Varn
John Faber

EDITORIAL STAFF

Editor
E. E. McSweeney

Associate Editors
Ray Lawrence
Douglas E. Campbell
Francis V. Pound
Jack Dean
Ralph Gillum
H. Kuritani

BUSINESS STAFF

Publisher
W. H. Flanagan

Assistant to Publisher
Ruth Joseph

Production Manager
Donna Sinor

The NAVAL STORES INTERNATIONAL YEARBOOK presents all available statistical data on world-wide production, importing, exporting and consumption of naval stores products. It is published by NAVAL STORES REVIEW, executive and editorial offices 107 Camp St., New Orleans, LA. 70130. Price $25.00 per copy. Postmaster send changes of address to P. O. Box 2406, New Orleans, LA. 70176.

TABLE OF CONTENTS

EXPORT PRICES FOR TALL OIL 3

SECTION 1—U.S. Naval Stores—Production

- U.S. Rosin 5
- U.S. Turpentine 5
- U.S. Tall Oil 6

SECTION 2—U.S. Naval Stores—Imports

- Gum Rosin 9
- Rosin (NSPF) 9
- Turpentine 9

SECTION 3—U.S. Naval Stores—Exports

- Rosin 11
- Turpentine 11
- Exports by Countries 12,13,14
- Crude Tall Oil 16
- Tall Oil Fatty Acid 17

SECTION 4—

Tall Oil Fractionators 19

SECTION 5—World Naval Stores

- Argentina 21
- Australia 21
- Austria 21
- Belgium 21
- Brazil 22
- Canada 22
- Finland 22
- France 23
- Greece 23
- Germany (West) 23
- India 23
- Japan 24
- Mexico 24
- Netherlands 24
- Norway 24
- P.R. of China 24
- Portugal 24
- Spain 25
- Sweden 25
- Switzerland 26
- United Kingdom 26
- Yugoslavia 26

SECTION 6 — World Production 27

Publisher's Note—The material in this 1982 Yearbook includes all available data received to date of June 10, 1983. Any data received after that date will be published, as received, in the bi-monthly NAVAL STORES REVIEW.

Copyright, Naval Stores Review Yearbook 1982

How Hercules is stimulating new growth in Naval Stores

At Hercules, aggressive programs are underway that will provide new growth to the Naval Stores industry for the 1980's and beyond.

Through our unique Pinex program, we are increasing rosin and turpentine formation in pine stumps by inoculation with a special reagent. Concurrently, Hercules is forging ahead with increased research and development, new product applications, and a program for multiple sourcing of raw materials.

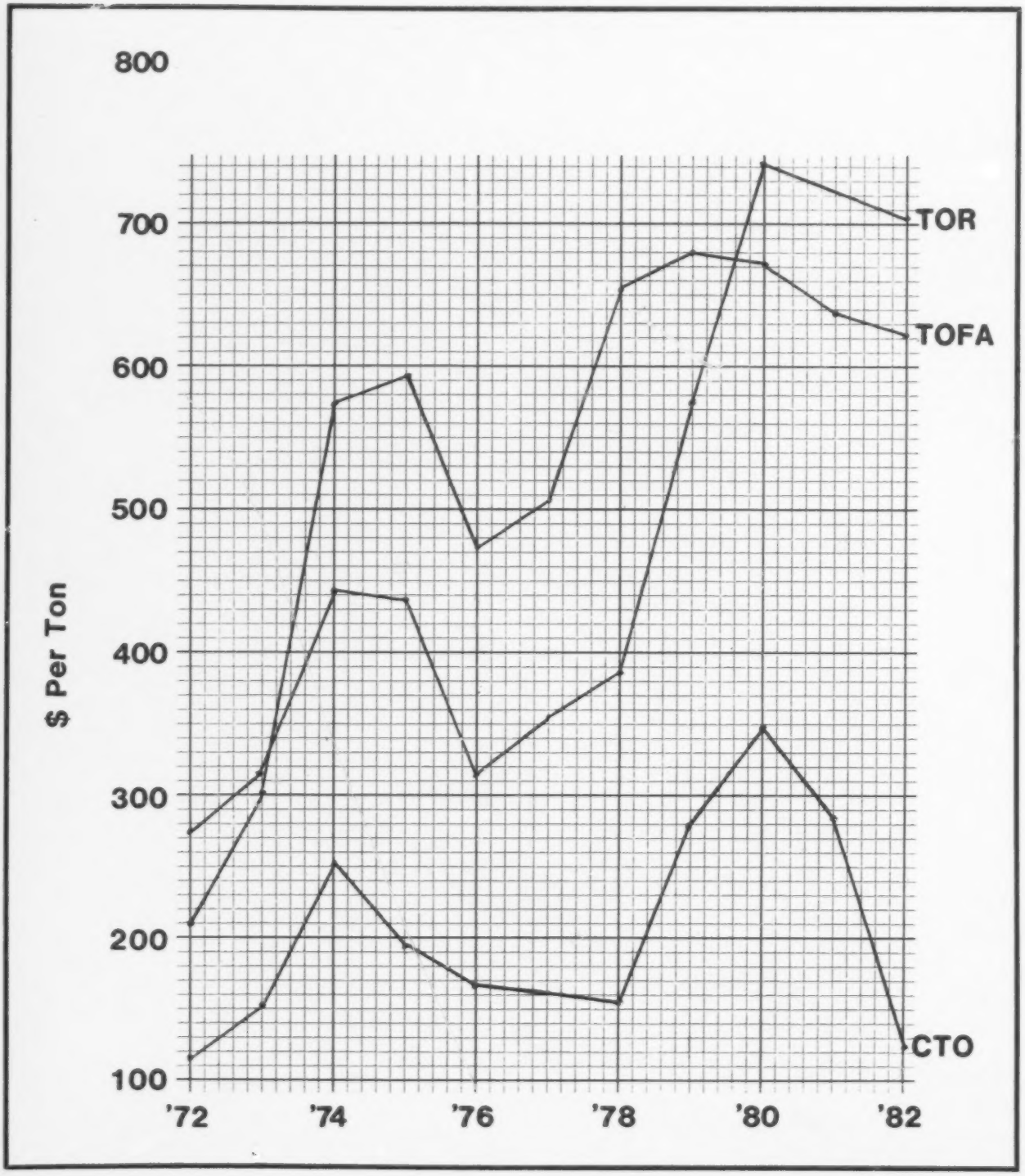
By far, we remain the leader in Naval Stores by our solid commitment to the industry. To meet your needs in Naval Stores worldwide, call upon Hercules, where the emphasis is on quality, innovation, and growth.

HERCULES

Hercules Incorporated
910 Market Street
Wilmington, Delaware, USA 19899
Telephone: (302) 575-6500
Telex: 83-5479

Export Prices For: Crude Tall Oil, Tall Oil Fatty Acids, Tall Oil Rosins

1972-1982



LANGLEY-SMITH & CO., LTD.

"LANGLEY HOUSE," 19/21 CHRISTOPHER ST.
FINSBURY SQUARE, LONDON, EC2A 2BT

Telephone: London, 247-7473

Telex: Lanroz London 883013

Telegraphic Address: Langroz London, E. C. 2

Importers of

ROSIN

OF ALL TYPES FROM ALL ORIGINS

Sole Distributors in the United Kingdom

FOR NAVAL STORES RESINS AND LIQUID PRODUCTS

Manufactured By

HERCULES INCORPORATED

SOCER --Sociedade Central de Resinas

S. A. R. L.

EUROPE'S BIGGEST PROCESSORS, EXPORTERS

OF

GUM ROSIN

AND

GUM TURPENTINE

AV ANTONIO AUGUSTO de AGUIAR 19, 1
P-1003 LISBOA CODEX
PORTUGAL

Telephone: 57 80 88
Cable Address: COLOFON - LISBOA
Telex No.: 12 203 SOCER P

Section 1
U. S. Naval Stores

- ROSIN
- TURPENTINE
- TALL OIL

U.S. ROSIN PRODUCTION (metric tons)

Calendar Year	Gum	Wood	Tall Oil	Total
1973	18.4	160.0	202.0	378.4
1974	13.2	142.5	180.0	336.4
1975	16.2	77.7	146.1	240.0
1976	15.3	119.7	183.4	318.5
1977	12.2	113.9	184.0	310.1
1978	8.5	109.0	192.3	309.8
1979	6.4	105.2	210.6	322.1
1980	5.4	104.0*	203.0	311.9*
1981	4.6	95.0*	201.6	301.2*
1982	4.0*	80.0*	176.4	260.4*

*Estimated

U.S. TURPENTINE PRODUCTION

Calendar Year	Gum	Wood	Refined Sulfate	Total
1973	1,143	3,536	22,629	27,308
1974	797	3,407	21,379	25,583
1975	1,006	1,890	18,575	21,472
1976	920	2,997	20,265	24,183
1977	731	2,618	20,297	23,646
1978	517	3,666	22,066	24,950
1979	369	2,439	23,449	26,257
1980	314	2,400*	24,979	27,689*
1981	270*	2,200*	23,310	26,020*
1982	230*	1,850*	21,283	23,363*

*Estimated

Now Available...Eighth Annual

1983 Study of International Rosin Markets

An authoritative survey of current market conditions in the United States, Europe and Japan together with up to date statistical information and forecast of future trends.

For further information contact:

International Development Associates, Inc.

POST BOX 3774 WILMINGTON, DEL. 19807

PHONE (215) 388-2135 CABLE: IDEAMEN TELEX 835-394

U.S. TALL OIL

CRUDE TALL OIL (1000 metric tons)

	1978	1979	1980	1981	1982
STOCKS, JAN. 1	46.3	65.8	56.2	55.5	65.9
PRODUCED	733.5	769.7	795.6	798.9	715.6
PROCESSED	642.7	695.9	688.1	702.3	624.1
OTHER USES	7.9	5.6	4.2	6.7	7.1
EXPORTS	42.7	42.6	46.5	44.7	52.0
DOMESTIC SALES	19.7	33.3	53.5	30.6	15.9
STOCKS, DEC. 31	65.8	56.2	55.5	65.9	80.0

TALL OIL ROSIN (1000 metric tons)

	1978	1979	1980	1981	1982
STOCKS, JAN. 1	28.0	26.5	13.8	7.6	17.1
PRODUCTION	192.4	210.5	203.0	201.6	176.4
EXPORTS	33.8	44.6	39.6	23.6	15.9
DOMESTIC USE	160.0	177.2	169.3	168.5	153.5
STOCKS, DEC. 31	26.5	13.8	7.6	17.1	24.2

TALL OIL FATTY ACID (1000 metric tons)

	1978		1979		1980		1981		1982	
	Over 2%	Under 2%	Over 2%	Under 2%	Over 2%	Under 2%	Over 2%	Under 2%	Over 2%	Under 2%
STOCKS, JAN. 1	4.3	3.8	7.1	4.7	7.4	4.9	25.5	3.7	15.0	6.7
PRODUCTION	92.8	83.4	97.4	94.2	104.4	85.6	92.8	98.7	82.8	87.8
DOMESTIC USE	77.0	73.3	82.8	82.5	77.6	77.8	86.5	85.7	78.5	81.0
EXPORTS	13.0	9.2	14.3	12.1	8.7	9.1	16.8	9.9	10.5	9.2
STOCKS, DEC. 31	7.1	4.7	7.[illegible]	4.4	25.4	3.7	15.0	6.7	8.8	4.4

YASUHARA YUSHI KOGYO CO., LTD.

No 1[illegible] TAKAGI CHO FUCHU-CITY
HIROSHIMA 726 JAPAN

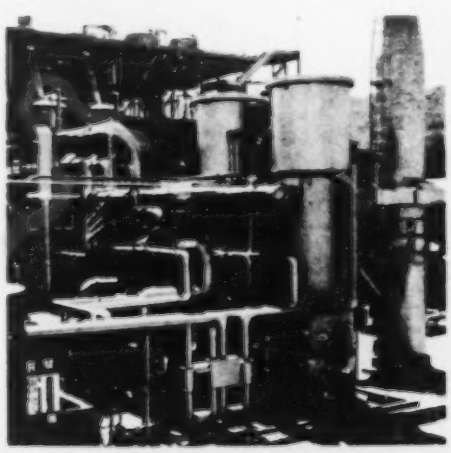
SPECIALIZING IN TERPENE CHEMICALS

Polyterpene Resin
Terpene Phenolic Resin
Rubber Processing Oil
Rubber Reclaiming Oil
Polyethylene Wax

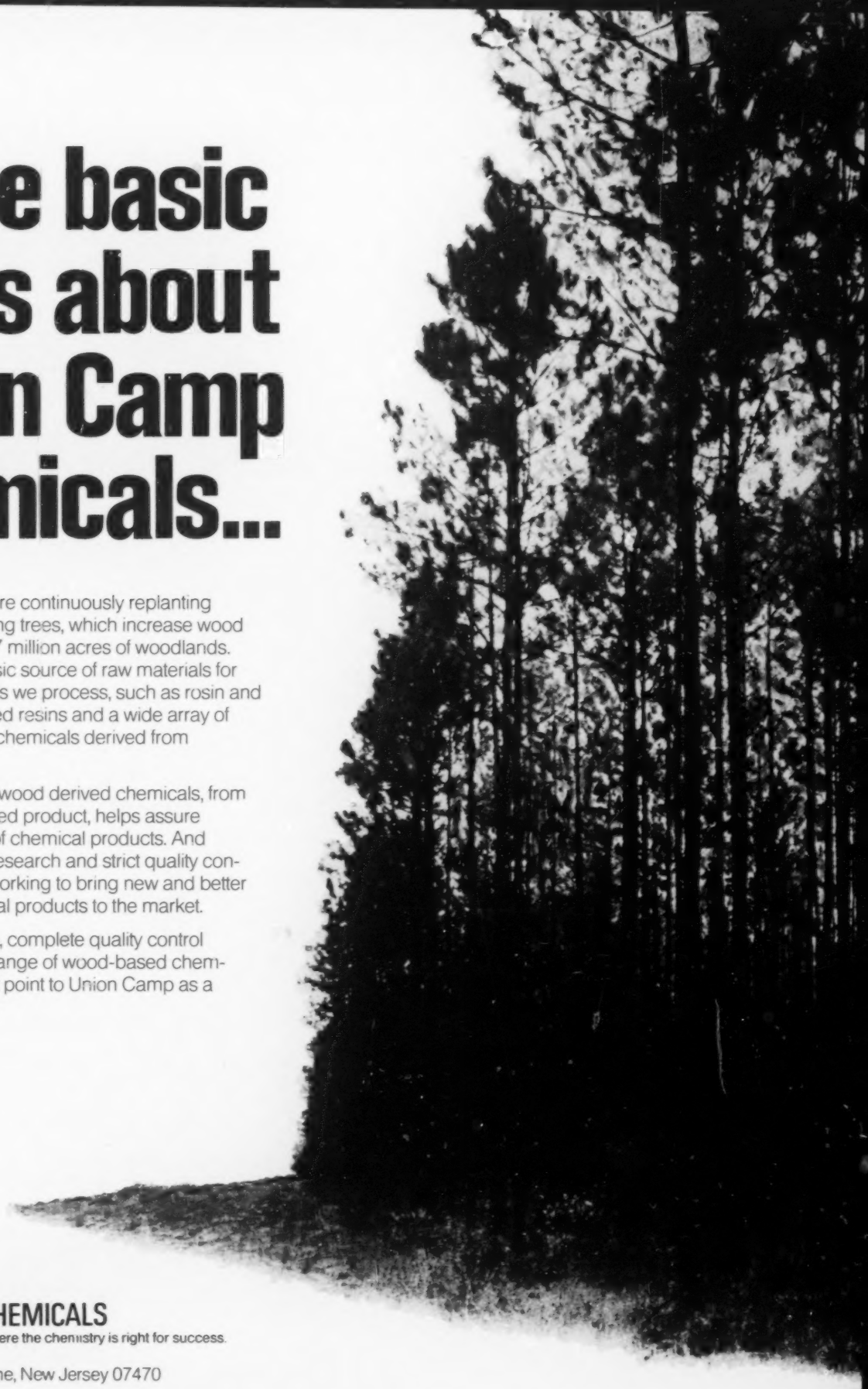
Terpene Derivatives
Allo-Ocimene
Terpineol
Anethole
Nopyl Acetate

Cable Address
YASUHARAYUSHI FUCHUHIROSHIMA

Telex 645729 YYKCL
Tel (0847) 45-3530



Some basic facts about Union Camp chemicals...



At Union Camp, we are continuously replanting superior, faster growing trees, which increase wood fibre yields, on our 1.7 million acres of woodlands. These trees are a basic source of raw materials for the chemical products we process, such as rosin and fatty acids, rosin-based resins and a wide array of flavor and fragrance chemicals derived from turpentine.

Our basic position in wood derived chemicals, from the forest to the finished product, helps assure a continuing supply of chemical products. And through expansion, research and strict quality control, Union Camp is working to bring new and better wood-based chemical products to the market.

Extensive woodlands, complete quality control facilities and a wide range of wood-based chemicals—basic facts that point to Union Camp as a leader in the industry.

Union Camp CHEMICALS
Where the chemistry is right for success.

1600 Valley Road, Wayne, New Jersey 07470

IF YOU SELL GOOD PAINT—

SELL GUM TURPENTINE

the original standard Paint Thinner

Gum Turpentine is the original, fool-proof paint thinner for oil-based paints, enamels and for varnishes. It penetrates properly to anchor the paint —enriches the paint film. Nationally advertised in leading magazines. Order a good stock of Gum Turpentine today. The AT-FA seal is your assurance of genuine spirits of Gum Turpentine.

AMERICAN TURPENTINE FARMERS ASSOCIATION
General Offices: Valdosta, Ga.

Section 2

U. S. Naval Stores Imports

U.S. Naval Stores Imports

	1981 (Lbs.)	F.A.S. Value (Dollars)	1982 (Lbs.)	F.A.S. Value (Dollars)
GUM ROSIN				
Belize	40,000	21,470	190,256	47,564
Mexico	441,987	180,479	772,363	87,734
Honduras	640,842	311,059	350,746	102,782
Portugal	15,880,073	754,107	4,663,209	1,446,427
China	7,917,739	3,257,308	3,940,969	1,337,543
Taiwan	119,048	40,478	-----	-----
ROSIN (NSPF) *				
Belize	209,085	107,224	-----	-----
Canada	400,000	98,500	692	1,003
United Kingdom	67	1,715	9,291	1,824
Belgium	-----	-----	882	794
F.R. Germany	-----	-----	930	2,574
China	-----	-----	37,015	8,412
Japan	-----	-----	705	1,332
France	44,092	27,944	-----	-----
CRUDE GUM				
Canada	80,000	19,700	-----	-----
Honduras	16,596	9,326	39,419	12,199
United Kingdom	1,552,477	696,019	91	1,546
F.R. Germany	-----	-----	551	980
Switzerland	-----	-----	38	857
China	758,714	332,819	160,379	40,093
Japan	-----	-----	18	454
SPIRITS OF TURPENTINE				
Canada	528	892	4,953	6,516
Mexico	159,609	404,889	29,583	43,469
Honduras	17,100	39,975	56	360
United Kingdom	243	1,330	355	1,564
France	410	1,143	119	546
F.R. Germany	195	524	1,223	4,195
Portugal	-----	-----	40	791
Japan	62	500	30	1,331
China	264,795	94,507	-----	-----
Rep. of South Africa	177,026	59,856	-----	-----

* **(Category Not Specifically Provided For)**

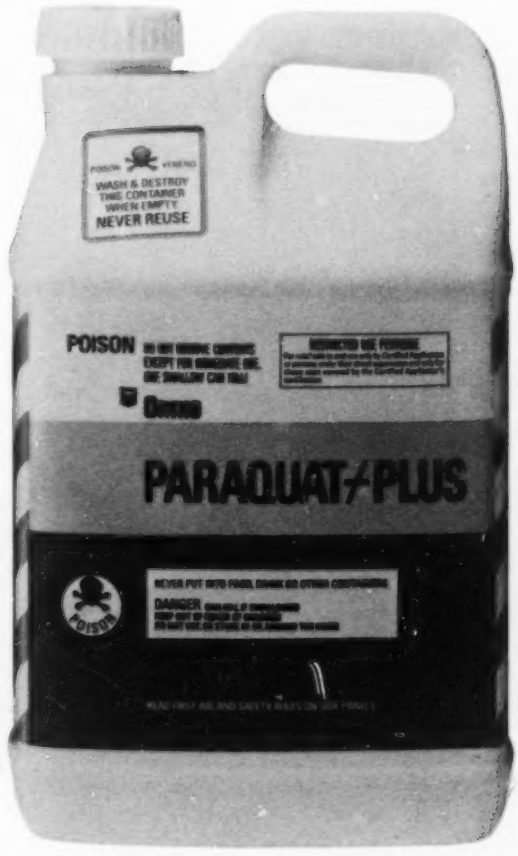
ORTHO PARAQUAT WILL INCREASE THE CONCENTRATION OF RESIN IN PINE WOOD.

ORTHO PARAQUAT Plus contact herbicide works fast when it's used for resin soaking operations on Loblolly, Shortleaf, Longleaf, Slash, Virginia, Pond, Pitch and Spruce Pines.

PARAQUAT can be applied in a variety of ways — through bark streak or cuts, by tree injection or the bore hole method.

For further information about PARAQUAT, write Dick Foell, Chevron Chemical Company, 575 Market Street, San Francisco, CA 94105.

DANGER: PARAQUAT is highly toxic if swallowed and should be kept out of the reach of children. To prevent accidental ingestion, never transfer to food, drink or other containers. Read the label carefully and follow all directions, danger statements and worker safety rules. Restricted Use Pesticide. Use all chemicals only as directed.



Chevron
ORTHO PARAQUAT

Copyright © 1983 Chevron Chemical Company. All rights reserved.

Section 3
U. S. Naval Stores Exports

- ROSIN
- TURPENTINE
- EXPORTS BY COUNTRY
- TALL OIL

U.S. Exports — Rosin
(Metric Tons)

Years	Gum	Wood	Tall Oil	Total
1973	16,910	50,260	43,517	110,688
1974	4,832	39,764	32,589	77,284
1975	3,065	13,813	17,121	33,998
1976	3,144	24,745	42,023	69,913
1977	3,045	21,666	21,668	46,380
1978	4,189	22,139	46,215	77,543
1979	4,499	24,770	63,290	92,518
1980	3,272	21,331	66,648	91,242
1981	3,617	23,370	52,365	79,352
1982	1,929	10,318	43,198	55,445

U.S. Exports — Turpentine
(Gallons)

Years	Gum	Wood	Sulfate	
1973	163,542	5,098,883	.....	5,262,425
1974	111,910	1,106,549	.....	1,218,459
1975	77,766	152,230	.....	229,995
1976	79,737	707,576	.....	787,313
1977	55,820	1,152,909	.....	1,208,729
1978	288,178	3,508,810	1,323,073	5,022,554
1979	198,027	2,634,597	2,189,930	5,021,554
1980	171,098	2,900,454	4,637,199	7,708,751
1981	202,570	660,816	3,123,012	3,986,398
(Lbs.)				
1982	235,431	628,490	6,462,182	

U.S. Exports — Tall Oil
(Metric Tons)

	Crude Tall Oil	Tall Oil Fatty Acids
1973	28,453	33,879
1974	64,704	29,423
1975	44,048	13,914
1976	77,145	28,645
1977	43,827	27,882
1978	60,706	28,710
1979	50,860	32,234
1980	56,564	29,154
1981	55,850	26,860
1982	71,334	25,753

1982 U.S. EXPORTS BY COUNTRY
(1,000 lbs.)

	Gum	Wood	Tall Oil
Argentina	—	—	2,977
Australia	133	899	1,827
Belgium	—	—	5,379
Brazil	—	960	6,054
Canada	1,946	789	16,688
Columbia	—	—	388
Costa Rica	—	—	948
Denmark	—	233	—
Equador	—	—	139
Finland	—	83	—
France	—	312	1,366
Germany F.R.	669	1,661	5,456
Italy	152	366	1,866
Japan	675	1,642	6,815
Kenya	—	—	153
Korea	—	—	4,895
Mexico	—	—	1,820
Netherlands	—	11,691	8,818
New Zeland	—	136	—
Peru	—	—	350
Philippines	—	—	413
Rep. of South Africa	—	372	3,669
Spain	—	—	770
Sweden	—	—	130
Taiwan (China)	—	465	7,885
United Kingdom	165	1,852	2,978
Venezuala	—	437	3,487
Yugoslavia	—	—	60
Other Countries	513	851	1,116
TOTAL 1982	4,254	22,752	86,398
1981	5,666	42,273	115,446

New Steel Drums of all types—tight head or full open head--black steel or galvanized—lined or unlined—with fast, dependable service to YOUR plant.

Florida Drum Company, Inc.

Pensacola, Florida 32589

P. O. Box 1951 Phone A/C 904 438-7521

United States Exports of Rosin by Countries (1,000 Lbs.)

Argentina

Year	Gum	Wood	Tall Oil	Total
1973		325	1,524	1,849
1974	48	827	1,334	2,209
1975		187	2,040	2,289
1976		382	881	1,263
1977		306	1,146	1,452
1978		476	1,358	1,834
1979	267		4,681	4,948
1980	12	54	4,159	4,225
1981			4,905	4,905
1982	-----	-----	2,977	2,977

Brazil

Year	Gum	Wood	Tall Oil	Total
1973	1,236	8,902	10,362	20,500
1974	779	5,187	14,140	20,122
1975	160	5,925	6,561	12,646
1976		6,082	2,479	8,561
1977		9,128	2,172	11,300
1978	188	7,366	6,587	14,141
1979	321	10,879	14,818	26,018
1980	300	6,738	22,289	29,327
1981	1,220	3,388	15,751	20,359
1982	-----	960	6,054	7,014

Australia

Year	Gum	Wood	Tall Oil	Total
1973	3,134	2,939	1,239	7,312
1974	1,350	4,474	440	6,264
1975		432		432
1976	50	1,729	608	2,387
1977	354	1,494		1,848
1978	201	1,793	1,249	3,243
1979	268	1,464	1,307	3,039
1980	219	1,157	4,750	6,125
1981	172	1,174	2,294	3,640
1982	133	899	1,827	2,859

Canada

Year	Gum	Wood	Tall Oil	Total
1973	4,136	13,987	17,395	35,512
1974	1,578	12,812	16,106	30,496
1975	1,020	5,771	9,320	16,111
1976	705	5,402	14,185	20,292
1977	1,008	5,372	12,660	19,040
1978	3,507	3,345	16,254	23,106
1979	4,364	1,123	22,571	28,058
1980	2,006	1,015	17,778	20,799
1981	1,595	1,612	28,370	41,087
1982	1,946	789	16,688	19,423

Belgium

Year	Gum	Wood	Tall Oil	Total
1973	898	363	1,200	2,461
1974		218	509	727
1975				
1976			3,979	3,979
1977				
1978		869	3,563	4,432
1979		2,014	2,597	4,611
1980	46	136	6,836	7,018
1981			4,931	4,931
1982	-----	-----	5,379	5,379

Colombia

Year	Gum	Wood	Tall Oil	Total
1979			1,790	1,790
1980	18	76	1,531	1,625
1981		95	648	743
1982	-----	-----	338	338

UNIAO DE INDUSTRIAIS DE PRODUTOS RESINOSOS, LDA.

— EXPORTERS OF GUM ROSIN AND TURPENTINE —

Crude Gum collected in the best forest areas in Portugal, is processed in three factories, one of which is the biggest and the most modern in Europe, operating by continuous steam system destillation. — We export all over the world

Address: Av. Infante Santo, 23-10-D - 1300 Lisboa-PORTUGAL
Phones: 671150/59-CABLE: UNIRES — TELEX 16477 RESINS P

Denmark

Year	Gum	Wood	Tall Oil	Total
1973		254		254
1974		273		273
1975		199		199
1976		184		184
1977		386		386
1978		240		240
1979		439	463	902
1980	11	286	60	357
1981		247		247
1982	-----	233	-----	233

France

Year	Gum	Wood	Tall Oil	Total
1973	2,570	503	4,823	7,896
1974	489	478	1,098	2,065
1975	469		1,165	1,634
1976	444	265	4,632	5,341
1977	520	124	925	1,599
1978	259		6,762	7,021
1979	320	452	2,834	3,606
1980	558	252	9,278	10,088
1981		306	4,253	4,559
1982	-----	312	1,366	1,678

Germany

Year	Gum	Wood	Tall Oil	Total
1973	4,832	14,440	8,013	27,285
1974	964	6,714	6,264	13,942
1975	707	3,069	4,597	8,373
1976	793	7,201	6,093	13,087
1977	871	2,915	3,975	7,761
1978	984	1,064	3,595	6,643
1979	705	2,181	9,346	12,232
1980	674	4,105	10,262	15,041
1981	429	1,720	4,180	6,329
1982	669	1,661	5,456	7,786

Italy

Year	Gum	Wood	Tall Oil	Total
1973	599	1,440	102	2,141
1974	476	1,379	270	2,125
1975	816	489	579	1,854
1976	335	900		1,235
1977	315	1,038		1,353
1978	503	1,074	992	2,569
1979	838	1,190	1,304	3,332
1980	527	949	2,412	3,888
1981		785	2,095	2,880
1982	152	366	1,866	2,384

Japan

Year	Gum	Wood	Tall Oil	Total
1973	10,118	17,741	22,130	49,989
1974	2,356	8,947	7,365	18,668
1975	1,360	2,967	3,683	8,010
1976	2,237	4,442	22,459	29,138
1977	1,609	3,040	9,418	14,067
1979	1,177	3,437	30,798	35,412
1980	1,796	4,155	25,003	30,954
1981	1,258	4,740	11,801	17,799
1982	675	1,642	6,815	9,132

Korea Republic

Year	Gum	Wood	Tall Oil	Total
1973			4,594	4,594
1974		153	3,337	3,490
1975				
1976			3,559	3,559
1977			5,857	5,857
1978			9,842	9,842
1979			10,129	10,179
1980		9	7,360	7,369
1981			6,202	6,202
1982	-----	-----	4,895	4,895

Mexico

Year	Gum	Wood	Tall Oil	Total
1973	324	1,460	3,054	4,838
1974	44	741	3,944	4,729
1975			1,722	1,722
1976			1,987	1,987
1977				
1978			2,063	2,063
1979			1,880	1,880
1980	302		1,009	1,311
1981			1,355	1,355
1982	-----	-----	1,820	1,820

Netherlands

Year	Gum	Wood	Tall Oil	Total
1973	3,313	20,491	4,053	27,857
1974	1,195	17,447	2,003	20,645
1975	491	2,972	892	4,355
1976	659	12,236	8,682	21,577
1977	715	12,531	1,388	14,616
1978	587	9,970	8,354	18,911
1979	334	17,856	8,659	26,849
1980	22	19,331	6,253	25,606
1981		21,785	3,835	25,620
1982	-----	11,691	8,818	20,509

Peru

Year	Gum	Wood	Tall Oil	Total
1979	.....	.....	.....	
1980	257	782	185	1,224
1981	176	292	.....	468
1982	-----	-----	350	350

Philippines

Year	Gum	Wood	Tall Oil	Total
1979	.....	.....	1,145	1,145
1980	24	112	135	271
1981	.....	.....	356	356
1982	-----	-----	413	413

Republic of South Africa

Year	Gum	Wood	Tall Oil	Total
1973	286	2,365	916	3,567
1974	95	3,174	.....	3,269
1975	.....	2,224	1,101	3,321
1976	.....	2,036	743	2,779
1977	-----	852	933	1,785
1978	.....	1,521	2,352	3,873
1979	-----	1,890	3,184	5,074
1980	-----	1,097	4,449	5,546
1981	-----	896	3,865	4,761
1982	-----	372	3,669	4,041

Spain

Year	Gum	Wood	Tall Oil	Total
1973	.....	419	.....	419
1974	.....	157	.....	157
1975	.....	.....	.....	-----
1976	.....	281	.....	281
1977	.....	241	.....	241
1978	.....	-----	515	515
1979	-----	-----	1,059	1,059
1980	-----	97	1,397	1,494
1981	.....	-----	1,191	1,191
1982	-----	-----	770	770

Sweden

Year	Gum	Wood	Tall Oil	Total
1973	-----	433	-----	433
1974	-----	734	-----	734
1975	-----	211	.....	211
1976	-----	325	661	986
1977	-----	448	440	488
1978	-----	377	-----	377
1979	-----	-----	-----	.....
1980	-----	105	93	198
1981	-----	-----	-----	.....
1982	-----	-----	130	130

China (Taiwan)

Year	Gum	Wood	Tall Oil	Total
1973	221	1,042	4,854	6,117
1974	.....	1,350	2,406	3,756
1975	.....	.....	1,884	1,884
1976	.....	.....	5,006	5,006
1977	.....	413	2,198	2,611
1978	.....	675	5,691	6,466
1979	-----	629	9,013	9,642
1980	9	738	7,503	8,250
1981	.....	574	11,092	11,666
1982	-----	465	7,885	8,350

United Kingdom

Year	Gum	Wood	Tall Oil	Total
1973	2,801	14,040	5,150	21,991
1974	466	13,196	8,122	21,784
1975	237	3,205	3,527	6,969
1976	371	8,129	15,258	23,758
1977	463	5,779	4,660	10,902
1978	507	9,099	8,147	17,753
1979	482	7,524	7,779	15,785
1980	154	4,449	6,331	10,934
1981	262	3,261	4,389	7,912
1982	165	1,852	2,978	4,995

Venezuela

Year	Gum	Wood	Tall Oil	Total
1973	440	1,013	601	2,054
1974	90	1,640	44	1,774
1975	349	886	.....	1,235
1976	.....	1,873	.....	1,873
1977	.....	1,298	.....	1,298
1978	.....	3,178	2,385	5,563
1979	.....	702	2,130	2,832
1980	29	439	3,214	3,682
1981	-----	194	3,269	3,463
1982	-----	437	3,487	3,924

OTHER ROSIN EXPORTS
(Quantities too small to list by countries)

Year	Gum	Wood	Tall Oil	Total
1973	1,193	2,432	328	3,953
1974	400	2,519	312	3,231
1975	804	1,936	675	3,415
1976	718	2,418	311	3,447
1977	859	2,223	1,997	5,079
1978	799	2,666	2,145	5,610
1979	842	2,828	1,994	5,664
1980	233	783	4,633	5,649
1981	555	1,201	5,664	7,420
1982	513	851	1,116	2,480

B.C. CHEMICALS LTD.

MANUFACTURER
OF
SODIUM CHLORATE
AND
CRUDE TALL OIL

P.O. BOX 6000
PRINCE GEORGE, B.C.
CANADA
V2N 2K3

TELEX: 047-8687

PHONE: (604) 563-0607

RESINERA MAYA, S.A.
PROCESSORS-EXPORTERS

OF

GUM ROSIN

AND

GUM TURPENTINE

P. O. BOX 811
TEGUCIGALPA, REPUBLIC OF HONDURAS

Telephone: 32-5407/32-5482
Cable Address: RESIMA

Telex No.: 1144-RESIMA H.T.

Exports — U.S. Crude Tall Oil* (2000 Lbs.)

	1978	1979	1980	1981	1982
NORTH AMERICA					
Canada	2,810	1,646	1,081	1,202	806
Mexico	1,219	4,166	4.032	4,577	1,852
Guatemala	6	—	—	5	12
El Salvador	—	32	—	—	—
Costa Rica	—	—	2	—	4
Panama	5	5	6	10	6
Jamaica	23	9	10	8	37
Haiti	37	12	36	—	—
Dominican Rep.	—	6	8	4	12
Neth. Antilles	4	—	—	2	2
SOUTH AMERICA					
Columbia	22	1	27	27	76
Venezuela	578	247	387	429	306
Guyana	17	22	20	13	2
Surinam	19	18	15	—	1
Equador	—	—	1	—	—
Peru	36	3	61	29	—
Chile	—	—	15	11	—
Brazil	557	5,462	2,777	1,187	518
Argentina	16	94	55	25	2
EUROPE					
Sweden	—	58	—	1	1
United Kingdom	6,191	5,035	—	9	16,888
Netherlands	22	734	1,068	1,022	911
Belgium	437	247	35	18	36
France	28	30	—	4	—
West Germany	2,202	1,054	42	527	176
Austria	—	—	333	—	—
Switzerland	—	—	—	—	108
Portugal	—	—	—	—	1
Italy	45	61	110	517	—
Greece	3	20	15	24	18
ASIA					
U. Arab Emirates	—	—	47	—	—
Pakistan	—	7	—	—	—
Bangladesh	—	—	—	229	—
Burma	—	—	—	—	3
Malaysia	2	3	2	—	1
Singapore	—	—	—	—	7
Philippines Rep.	185	191	34	136	168
Korea	—	311	—	16	7
Hong Kong	—	—	5	—	—
Taiwan — China	18	399	3	17	17
Japan	49,704	33,189	51,037	51,012	55,240
AUSTRALIA & OCEANIA					
Australia	290	305	74	490	225
New Zealand	39	58	—	11	4
AFRICA					
Morocco	—	—	11	—	—
Egypt	—	—	12	—	—
Ghana	—	4	—	—	—
Nigeria	28	76	258	—	13
Rep. of South Africa	2,359	2,558	733	3	1,162

*Includes Crude, Distilled & Acid Refined Tall Oils

Source: U.S. Department of Commerce

Tall Oil Fatty Acid Exports — (metric tons)

	1980		1981		1982	
	2% & Over Rosin	Under 2% Rosin	2% & Over Rosin	Under 2% Rosin	2% & Over Rosin	Under 2% Rosin
NORTH AMERICA						
Canada	1,577	1,810	755	1,711	669	1,253
Mexico	148	3,523	239	3,446	356	2,108
Guatemala	—	9	42	4	12	4
Honduras	19	—	7	—	9	—
Costa Rica	24	131	51	22	—	—
Trinidad	—	12	—	14	—	8
Jamaica	—	—	52	—	27	15
SOUTH AMERICA						
Columbia	1,008	17	927	11	476	209
Venezuela	527	1,112	476	717	806	537
Ecuador	18	—	12	—	11	—
Peru	91	2	41	10	68	8
Brazil	22	827	55	276	94	930
Argentina	38	139	67	316	62	193
Surinam	—	—	28	—	33	—
EUROPE						
Sweden	16	—	28	55	—	20
U.K	2,019	1,820	658	174	3,388	813
Netherlands	94	6,143	421	5,283	90	5,639
Belgium	44	1,150	31	—	50	68
France	64	574	1,288	33	1,157	12
West Germany	818	2,287	869	2,047	1,254	1,903
Italy	146	—	11	170	17	—
Switzerland	2	189	2	—	44	—
ASIA						
India	34	36	3	121	16	95
Singapore	—	55	9	36	—	36
Philippines	57	40	58	78	45	125
Korea	141	407	76	403	149	337
Taiwan	34	108	88	216	89	280
Japan	1,374	1,447	1,041	2,888	1,285	2,164
Malaysia	7	—	77	—	48	16
Indonesia	—	—	—	51	—	66
Thailand	—	—	—	—	—	48
AUSTRALIA	468	442	826	586	548	311
NEW ZEALAND	49	10	193	11	88	28
MOROCCO	79	—	22	—	—	—
ZAIRE	165	--	—	—	—	—
REP. of SOUTH AFRICA	739	24	2,340	69	203	26
OTHER*	45	5	57	12	29	24
TOTAL	9,816	22,319	10,851	18,758	11,117	17,270

RAUSCH NAVAL STORES COMPANY, INC.

MANUFACTURERS DEALERS EXPORTERS

TURPENTINE • ROSIN • PINE TAR • NAVY PITCH
REFINED TALL OIL • PINE OIL • DIPENTENE

CABLE ADDRESS "RAUSCHO" P. O. BOX 4085 NEW ORLEANS, LA. 70178

LERIO

STANDARD OF QUALITY FOR OVER 65 YEARS.

ROSIN DRUMS • FLAT-HEAD DRUMS
TAPERED ASPHALT DRUMS

Lerio

P.O. Box 2084 • Mobile, Alabama 36652
Call Toll-Free (800) 633-1854 (in Alabama Call Collect 457-7661)
Plants: Mobile, Ala. • Valdosta, Ga. • Hattiesburg, Miss.

Willers, Engel & Co.

(Established 1910)

Hamburg 11
Grimm 8 Weco-Haus
Telex: 2161622

Düsseldorf 30
Niederrheinstr. 1c
Telex: 8584969

Germany
Telegraphic Address: WILLERSENG

Importers of

Gum Rosin, Talloil Rosin, Dimerized and Polymerized Rosin, Modified Rosin Esters, Resinates, Resin, Polyterpene Resin, Polyamide Resin etc.

Gum Spirits of Turpentine, Dipentene, Pineoil, Terpineol etc.

Y B C

BRANDAU Y COMPANIA, S.A.

Naval Stores Department
Rafael Calvo, 18
MADRID-10
SPAIN

Telephones: 4105996 - 4191845
Telex: 27485 - 42668 Braco e
Mail Address: P.O. Box 6118

IMPORTERS OF GUM ROSIN/TURPENTINE

SOLE AGENT IN SPAIN FOR THE FOLLOWING GROUP OF PORTUGUESE MANUFACTURERS

SOCER (Sociedade Central de Resinas) — Lisboa

MOURA & LEITAO LDA. — Lisboa

SOCIEDADE FABRIL DE PRODUTOS RESINOSOS, S.A.R.L. — Alferrarede

UNIAO DE INDUSTRIAIS DE PRODUTOS RESINOSOS, LDA. — Lisboa

BACHNER OIL PRODUCTS, AB — Stockholm
Tall Oil Rosin

RESINA AG — Switzerland
Naval Stores Products Advisors

T & R BRAND

T&R CHEMICALS INC.

SUPPLIERS OF
GUM TURPENTINE
AND
GUM ROSIN

BY TRUCKLOAD AT YOUR PLANT IN THE U.S.

P.O. BOX 330 CLINT, TEXAS 79836
TELEPHONE: 1-800-351-6025
IN TEXAS CALL COLLECT: (915) 851-2761
TELEX: 749-355

Section 4

Tall Oil Fractionators

UNITED STATES

	Capacity* 1981	(Short Tons) 1982
ARIZONA CHEMICAL COMPANY		
Panama City, Florida	105,000	105,000
Spring Hill, Louisiana	45,000	45,000
GEORGIA-PACIFIC		
Crossett, Arkansas	39,000	40,000
HERCULES INCORPORATED		
Franklin, Virginia	65,000	65,000
Hattiesburg, Mississippi	60,000	SHUT DOWN
Portland, Oregon	30,000	30,000
Savannah, Georgia	65,000	65,000
Burlington, Ontario	17,000	17,000
MONSANTO-EMERY		
Nitro, West Virginia	65,000	65,000
REICHHOLD CHEMICALS, INC. (Newport Division)		
Bay Minette, Alabama	36,000	40,000
Oakdale, Louisiana	60,000	60,000
SYLVACHEM CORPORATION		
Port St. Joe, Florida	100,000	110,000
UNION CAMP CORPORATION		
Savannah, Georgia	105,000	105,000
WESTVACO CORPORATION		
Charleston, S.C.	85,000	85,000
DeRidder, Louisiana	55,000	55,000
	946,000	887,000

* Based on Crude Tall Oil input

EUROPE

	Capacity 1980	(Metric Tons) 1982
AUSTRIA		
Krems Chemie/Krems a.d. Donau	13,000	13,000
BULGARIA		
Velingrad	4/5,000	4/5,000
FINLAND		
Enso-Gutzeil Osaheyhtio/ Imatra	32,000	40,000
Oulu Osakeyhtlo/Oulu	43,000	70,000
Valke/Valkeakoski	18,000	30,000
FRANCE		
Les Derives Resiniques & Terpeniques/ Dax	18,000	30,000
NORWAY		
M. Peterson & Sons/ Moss	20,000	40,000
POLAND		
Zaklada Celulozowo/ Swiecie	12,000	12,000
PORTUGAL		
Alegra S.A./Lisbon	3,000	3,000(?)
ROMANIA	3,000	3,000
SWEDEN		
Bergviks Hartsprodukter/ Sandarne	120,000	120,000
UNITED KINGDOM		
Union Camp Chemicals (U.K.) Ltd. Chester-le-Street	50,000	50,000
WEST GERMANY		
Huttenes-Albertus Werke/ Hannover	3,500	3,500

ASIA

JAPAN		
Arakawa Chemical Industries Ltd./ Osaka	15,000	15,000
Harima Chemicals Inc./ Kakogawa	20,000	20,000
Harima M.I.D./ Kakogawa	70,000	70,000
U.S.S.R.	66,000	66,000
NEW ZEALAND	---	10,000

DREW
Forest Chemicals Laboratory, Inc.
Suite 2-3, 6653 Powers Ave Jacksonville, Florida 32217

CONSULTING AND ANALYTICAL SERVICES INTERNATIONALLY

Providing specialized services in the recovery and processing of silvachemicals

JOHN DREW, P.E.

A. V. POUND & CO.. LTD.

83a High Street

Esher, Surrey, KT10 9PZ

England

IMPORTERS

OF

ROSIN, TURPENTINE AND TERPENE DERIVATIVES

OF ALL ORIGINS

Exclusive Agents in the United Kingdom
for Naval Stores Produced by

REICHHOLD CHEMICALS INC.

NEWPORT DIVISION

Pensacola, Florida

Telephone: ESHER (372) 68461 **Telex: 929848 POUND G**

Cables. Pugnacious Esher

Section 5
World Naval Stores

- Production
- Consumption
- Exports
- Imports

(*Editor's Note:* All figures expressed in metric tons unless otherwise indicated.)

Argentina

PRODUCTION

	Gum Rosin	Turpentine	Pine Oil
1973	120		
1974	250		
1975	500		
1976	750		
1977	1,200		
1978	2,000		
1979	3,500		
1980	4,200	1,100	600
1981	5,000	1,300	700

IMPORTS

	Gum Rosin	Turpentine	Pine Oil
1973	6,939	.....	.....
1974	9,563	279	584
1975	7,442	19	391
1976	6,148	17	313
1977	3,212	0	412
1978	4,890	6	207
1979	3,000	11	83
1980	2,300	.....	225
1981	1,000	.....	30

CONSUMPTION

	Gum Rosin	Turpentine	Pine Oil
1973	7,059	-----	.....
1974	9,813	-----	-----
1975	7,942	-----	.....
1976	6,898	-----	-----
1977	4,412	-----	-----
1978	6,890	-----	-----
1979	6,500	-----	-----
1980	6,500	1,100	-----

EXPORTS

1981	**500**	**30**	**20**

Australia

IMPORTS

	Gum Rosin	Wood Rosin, Resin Acids	Tall Oil	Turpentine (liters)
1978	6,767	2,423	665	6,733,523
1979	5,936	1,109	1,977	8,565,202
1980	7,292	2,593	479	5,410,317

Austria

IMPORTS

	Gum Rosin	Turpentine	Tall Oil
1973	5,017	818	7,420
1974	5,679	293	8,694
1975	2,665	.....	6,733
1976	5,552	18	8,193
1977	4,416	78	6,122
1978	3,455	51	12,680
1979	26	22	978
1980	1,418	210	10,445
1981	1,417	326	13,784
1982	1,438	253	14,842

EXPORTS

	Gum Rosin	Turpentine	Tall Oil
1973	20	644	486
1974	1,077	143	621
1975	270	190	103
1976	0	.....	349
1977	0	.....	220
1978	7	.....	598
1979	11	65	43
1980	178	.....	656
1981	195	125	416
1982	1	44	445

Belgium

IMPORTS

	Rosin	Turpentine
1973	4,638	746
1974	3,352	720
1975	1,140	568
1976	3,033	616
1977	2,138	711
1978	1,447	.....
1979*	1,234	689
1980	3,215	646
1981	2,710	694
1982	2,294	.....

Brazil

IMPORTS

	Gum Rosin	Tall Oil Rosin	Turpentine	Pine Oil
1973	22,338		253	
1974	45,935			
1975	8,645			
1976	23,972			
1977	19,202			
1978	32,007	1,373	15	4,889
1979	33,390	2,900	14	5,375
1980	27,076	5,383	15	4,265
1981	19,852	4,507	18	3,544

Canada

IMPORTS (1,000 lbs.)

	Rosin	Turpentine	Tall Oil, Pitch
1975	9,897	2,040	5,244
1976	12,364	2,906	6,280
1977	13,021	2,041	1,669
1978	13,557	2,098	2,574
1979	13,936	1,664	3,073
1980	10,734	1,564	2,497
1981	4,757	515	1,184

Finland

PRODUCTION

	Crude Turpentine	Crude Tall Oil	Tall Oil Rosin
1973	10,287	80,535	17,315
1974	11,620	84,783	15,214
1975	8,544	71,282	9,892
1976	9,172	74,568	15,073
1977	6,624	66,726	14,875
1978	7,907	86,904	13,515
1979	10,920	111,584	N.A.
1980	11,567	117,265	22,820
1981	11,749	117,408	23,614

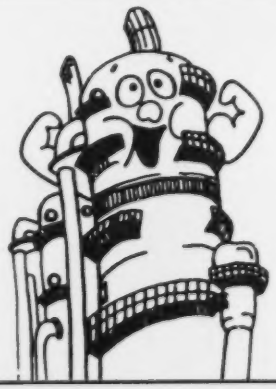
EXPORTS

	Turpentine (All Types)	Tall Oil Rosin	Tall Oil
1973	6,652	6,320	17,944
1974	9,949	5,691	41,527
1975	6,374	4,176	32,906
1976	7,829	8,910	32,880
1977	4,795	1,996	36,365
1978	9,575	8,669	39,810
1979	10,821	18,834	38,806
1980	10,258	14,942	40,582
1981	12,555	19,145	41,481

IMPORTS

	Rosin
1973	2,821
1974	1,648
1975	2,401
1976	1,391
1977	358
1978	1,097
1979	753
1980	509
1981	864

HARIMA



Tall Oil Fatty Acids
Tall Oil Rosins
Paper Chemicals
Paint Resins
Ink Resins
Adhesive Resins
Synthetic Rubber Emulsifiers

HARIMA CHEMICALS, INC.
4-21 DOSHO-MACHI, HIGASHI-KU, OSAKA, JAPAN
TELEX:0522-2339 HARIMA J CABLE:HARIMAKASEI PHONE(06)201-2461

France

PRODUCTION

	Rosin	Turpentine
1973	11,700	3,100
1974	8,750	2,232
1975	8,770	2,244
1976	7,490	1,885
1977	3,000	850
1978	2,660	680
1979	2,380	610
1980	2,100	540
1981	1,980	510
1982	2,030	520

CONSUMPTION

	Rosin	Turpentine
1973	36,000	14,000
1974	38,000	15,700
1975	20,481	6,232
1976	35,378	13,960
1977	22,300	8,450
1978	29,440	9,200
1979	30,270	9,600
1980	26,984	8,046
1981	21,764	8,179
1982	21,300	7,438

Greece

PRODUCTION			EXPORTS	
	Gum Rosin	Turpentine		Gum Rosin
1974	11,866	2,967	1974	11,602
1975	10,812	2,613	1975	5,969
1976	10,919	2,277	1976	6,331
1977	8,618	1,705	1977	4,502
1978	5,840	1,138	1978	5,893
1979	6,306	1,269	1979	2,718
1980	6,794	1,479	1980	5,976
1981	7,080	1,706	1981	3,533
1982*	8,910	2,295	1982	2,300

*Estimated

F. R. Germany

IMPORTS

	Rosin	Turpentine
1973	119,319	6,633
1974	99,523	6,903
1975	65,583	4,715
1976	61,642	4,732
1977	55,702	2,636

	Rosin			Turpentine	
	Gum	Wood	Tall Oil	Gum	Sulfate
1978	47,420	1,536	10,338	1,728	951
1979	49,629	794	16,565	1,885	60
1980	51,863	2,000	19,129	1,919	98

India

PRODUCTION	Oleoresin	Gum Rosin	Gum Turpentine
1973	48,970	36,728	12,242
1974	55,000	41,250	13,750
1975	75,000	56,250	18,750
1976	63,584	47,700	15,884
1977	56,800	42,600	14,200
1978	50,000	37,500	7,499
1979	48,000	36,000	7,200
1980	46,000	34,500	6,900
1981	41,500	31,125	6,225
1982	42,500	31,875	6,375

CONSUMPTION	Rosin	Turpentine
1974	41,251	13,750
1975	46,500	18,750
1976	47,700	10,149
1977	42,600	9,066
1978	41,000	7,499
1979	36,000	7,200
1980	41,500	6,900
1981	30,000	6,225
1982	31,875	6,375

Quality Naval Stores Products *Since 1921*

- REGULAR AND FORTIFIED PAPER SIZE
- ADHESIVE RESINS AND SOLUTIONS
- STEAM DISTILLED TURPENTINE
- FF WOOD ROSIN
- PRINTING INK RESINS
- ROSIN BASED SPECIALTIES
- STEAM DISTILLED PINE OIL

CONTINENTAL TURPENTINE & ROSIN CORP

Phone Cross City: AC 904 498-3335-6-7

Plant & Office Location: SHAMROCK, FLA.

Mail Address: P. O. Box QQ, CROSS CITY, FLA. 32628

Japan

IMPORTS

	Rosin	Turpentine Oil	Crude Tall Oil
1973	93,667	7,596	36,819
1974	70,861	8,459	47,974
1975	38,569	3,555	38,288
1976	64,945	6,126	45.904
1977	59,956	7,728	52,480
1978	57,780	5,731	54,325
1979	73,008	6,786	65,668
1980	56.931	6,517	67.025
1981	57,934	6,340	59,244
1982	42,432	5,803	70,220

Mexico

PRODUCTION

	Pine Gum	Gum Rosin	Turpentine
1973	.....	43,500	9,800
1974	65,055	45,438	11,059
1975	63,915	44,740	10,865
1976	56,207	39,344	9,555
1977	57,000	39,900	9,690
1978	57,500	40,250	9,775
1979	60,040	42,028	10,207
1980	61,267	42,886	10,415
1981	64,840	45,388	

EXPORTS

	Rosin

Netherlands

IMPORTS

	Rosin (Gum & Tall Oil)	Rosin (Wood)	Turpentine	Crude Tall Oil
1973	21,385	.....	321	.....
1974	32,698	.....	442	37,918
1975	11,930	.....	170	30,782
1976	20,225	.....	244	.....
1977	16,830	.....	251	24,111
1978	14,938	2,211	334	5,372
1979	16,259	1,575	248	3,598
1980	16,647	3,517	211	3,027
1981	10,692	2,991	283	2,902

EXPORTS

	Rosin	Other Rosins and Pitch	Crude Tall Oil	Turpentine
1974	950	3,141	2,342	49
1975	835	1,484	1,507	
1976	1,105	814	1,431	25
1977	3,159	494	2,688	22
1978	2,193	265	582	32
1979	599	1,897	1,356	81
1980	1,119	525	12	56
1981	1,317	96	----	159

Norway

IMPORTS

	Rosin	Turpentine	Crude Tall Oil
1973	4,213	319	.....
1974	4,249	221	12,711
1975	3,284	201	12,060
1976	3,553	193	.....
1977	1,828	213	.....
1978	1,532	209	13,824
1979	1,237	307	17,239
1980	906	212	19,336
1981	963	132	16,605
1982	442	198	15,572

EXPORTS

	Rosin	Turpentine
1980	1,920	344
1981	2,306	263
1982	2,697	482

People's Republic of China

PRODUCTION

	Rosin*	Turpentine*
1973	180,000	36,000
1974	180,000	35,000
1975	110,000	15,000
1976	110,000	10,000
1977	110,000	10,000
1978	200,000	45,000
1979	250,000	55,000
1980	310,000	60,000
1981	310,000	60,000

*Estimated

Portugal

PRODUCTION

	Gum	Rosin	Turpentine
1973	137,828	109,170	26,026
1974	138,963	108,002	25,682
1975	137,779	108,874	26,229
1976	100,319	78,849	18,070
1977	123,968	91,851	21,510
1978	96,280	75,257	17,325
1979	105,763	83,099	19,341
1980	120,000	94,000	22,000
1981	134,339	93,014	21,137
1982	123,627	92,188	20,635

EXPORTS

	Rosin	Turpentine
1973	97,421	16,583
1974	108,576	15,377
1975	49,955	9,389
1976	84,581	18,743
1977	65,793	13,007
1978	109,312	10,558
1979	92,334	13,474
1980	79,274	9,648
1981	73,879	14,523

Spain

PRODUCTION

	Gum	Rosin	Turpentine
1973	42,000	29,400	8,400
1974	42,000	29,400	8,400
1975	39,000	24,500	7,000
1976	33,600	28,000	5,600
1977	13,200	11,000	2,200
1978	21,300	12,700	4,000
1979	20,000	13,250	4,200
1980	26,000	18,200	5,200
1981	25,000	17,500	5,000
1982	26,000	18,000	5,460

Sweden

PRODUCTION

	Crude Tall Oil	Crude Sulfate Turpentine
1977	138,064	7,888
1978	160,319	8,793
1979	175,821	10,265
1980	165,584	11,583
1981	162,920	11,583

IMPORTS

	Gum and Wood Rosin	Tall Oil Rosin	Turpentine
1977	1,436	3,230	229
1978	346	1,821	197
1979	974	2,213	203
1980	991	2,061	174
1981	678	1,651	195
1982	931	1,195	152

EXPORTS

	Crude Tall Oil	Tall Oil Rosin	Crude Sulfate Turpentine
1977	50,501		8,217
1978	52,814		9,800
1979	47,932		10,150
1980	46,469		10,241
1981	43,233		6,904
1982	36,473		8,743

El Pino, S. A.

PRODUCERS AND EXPORTERS OF

MEXICAN NAVAL STORES PRODUCTS

●

GUM ROSIN

All Grades in Standard

Galvanized Drums

●

Pure Gum Spirits of

TURPENTINE

●

Address

12a. Cipres #384 —or— P.O. Box 636

MEXICO 06450, D.F., MEXICO

Cable Address: PINOSA MEXICO

Phones: 5475183 and 5411546 Mexico City

TELEX PINOME — 1775849

President
Mr. Jose Antonia Arias

Manager
Mr. Cesar A. de la Canal

Switzerland

IMPORTS

	Rosin	Turpentine Oil	Tall Oil
1973	5,471	881	91
1974	4,717	837	39
1975	2,954	490	63
1976	2,883	467	95
1977	3,423	494	269
1978	3,871	642	74
1979	3,879	503	153
1980	3,657	571	276
1981	3,054	431	353
1982	3,155	436	536

United Kingdom

IMPORTS

	Rosin	Turpentine
1973	43,407	536
1974	41,752	830
1975	20,206	1,078
1976	37,824	1,118
1977	36,479	533
1978	34,143	—
1979	35,299	616
1980	33,127	665
1981	22,163	418
1982	19,139	400

Yugoslavia

PRODUCTION

Rosin (80%) and Turpentine (20%)

1973	2,464
1974	4,868
1975	4,662
1976	4,748
1977	3,368
1978 (Est.)	3,630
1979 (Est.)	3,411

IMPORTS

	Combined Rosin & Turpentine	Rosin	Crude Turpentine	Tall Oil
1973	3,572	-----	-----	-----
1974	4,894	-----	-----	-----
1975	4,320	-----	-----	-----
1976	912	-----	700	211
1977	2,793	-----	2,531	260
1978	-----	165	24	158
1979	----	158	10	136

EXPORTS

	Tall Oil & Rosin	Turpentine Oil
1976	952	5
1977	1,019	38
1978	1,255	391
1979	1,158	200

BACHNER OIL PRODUCTS AB

Your source for

Tall Oils and Fatty Acids • Pine Tars • Rosins • Terpene Derivatives

Address: Sandelsgatan 26, S-115 33 STOCKHOLM
Cables: Bachneroil Stockholm
Telex: 198 13 BOP S

The WHITE SEA & BALTIC COMPANY Limited

IMPORTERS, EXPORTERS and DISTRIBUTORS

Turpentine
Pine Oil
Dipentene
Terpene Chemicals

Tall Oils & Fatty Acids
Pine Tars
Rosin
Resins & Pitches

PATMAN HOUSE, GEORGE LANE, SOUTH WOODFORD, LONDON, E. 18 2SA

Tel. 01-989 2223 *Telex:* London 897286 *Cables:* Rusturptar London E 18

Section 6
World Naval Stores

• Production

Rosin Production by Countries (All Types) (Metric Tons)

	1979	1980	1981	1982
Argentina	3,500	4,200	5,000	-----
Finland	---	22,320	23,614	-----
France	2,380	2,100	1,980	2,030*
Greece	6,306	6,794	7,080	8,910*
India	36,000	34,500	31,128	31,875
Mexico	42,028	42,886	45,388	-----
People's Republic of China	250,000	310,000	310,000	-----
Portugal	83,099	94,000	93,014	-----
Spain	13,250	18,200	17,500	18,000
U.S.A. (Includes Wood Rosin Est.)	322	312	301	260

*Estimated

World Turpentine Production by Countries (1,000 Gallons)

	1979	1980	1981	1982
Argentina	---	1,100	1,300	-----
Finland	10,920	11,567	11,749	-----
France	610	540	510	520
Greece	1,269	1,479	1,206	2,295*
India	7,200	6,900	6,225	6,375
Mexico	10,207	10,415	-----	-----
People's Republic of China	55,000	60,000	60,000	-----
Portugal	19,341	22,000	21,137	-----
Spain	4,200	5,200	5,000	5,460
U.S.A.	26,257[1]	27,689[1]	26,020[1]	23,363[1]

[1] U.S. Gallons

Whitney & Oettler

Dealers and exporters of naval stores.

Manufacturer of rubber tackifiers and plasticizers: Turgum S, Natac and Butac.

Telex No. 546 443
Cable Address "Wando"
P.O. Box 8024, Savannah, Georgia 31412
Telephone: 912-232-7166

Heybroek & Co's Handel Maatschappij N.V.

Heybroek & Co's Handel Maatschappij N.V.
Leidsegracht 38-40
P.O. Box 555
1000 AN Amsterdam

Telephone: Amsterdam 24 69 73
Telex: 11494 (Heybr NI)
Telegraphic Address: Brunella Amsterdam

International suppliers of Gum Rosin and Turpentine

INDEX TO ADVERTISERS

American Turpentine Farmers Association 6
Arizona Chemical Company 20
Bachner Oil Products AB 26
B. C. Chemicals, Ltd. 15
Brandau Y Compañía, S.A. 18
Chevron Chemical Company 10
Continental Turpentine And Rosin Corp. 23
Drew Forest Chemicals Laboratory, Inc. 19
El Pino, S.A. 25
Florida Drum Co., Inc. 11
FRP Company CII
Harima Chemicals, inc. 22
Hercules, Inc. 2
Heybroek & Co. 27
Industria Resinera Bahr, S.A. 28
International Development Associates, Inc. 5
Langley-Smith & Co., Ltd. 4
Lerio Corp. 18
Pound, A.V. & Co., Ltd. 20
PDM Incorporated CIII
Rausch Naval Stores Co., Inc. 17
Reichhold Chemicals, Inc. CIV
Resinera Maya, S.A. 15
Sintesis Quimica, S.A. 20
SOCER-Sociedade Central de Resinas 4
T & R Chemicals 18
Union Camp Corporation 7
Unires 12
White Sea & Baltic Co., Ltd. 26
Whitney & Oettler 27
Willers, Engel & Co. 18
Yasuhara Yushi Kogyo Co., Ltd. 6

INDUSTRIA RESINERA BAHR S.A.

(32 Years Experience in the Industry)

Leading Manufacturer and Exporter
of ALL GRADES OF HONDURAS ORIGIN GUM ROSIN
and GUM TURPENTINE
RESIBAHR — Quality Products Worldwide

P.O. Box 143, Tegucigalpa, Rep. Honduras, C.A.
Cable: BAHR Telex: 1196 RESIBAHR HT
Telephones: 32-27-89, 32-54-51